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Chapter 1

Reimbursement Overview & School Transportation Laws of Montana

Duty of Trustees to Provide Transportation (Montana Code Annotated § 20-10-121(1))

The trustees of any district may furnish transportation to an eligible transportee who attends a school of the district or has been granted permission to attend a school outside of the district. Whenever the trustees of a district provide transportation for any eligible transportee, the trustees must provide all eligible transportees of the district with transportation. The trustees shall furnish transportation when directed to do so by the county transportation committee and such direction is upheld by the superintendent of public instruction.

The type of transportation provided by a district may be:

- by a school bus, or
- paying the parent or guardian for individually transporting the pupil, or
- paying board and room reimbursements, or
- providing supervised correspondence study, or
- providing supervised home study.

The offering of a contract to the parent or guardian fulfills the district's obligation to furnish transportation for an eligible transportee. (MCA 20-10-121(2))

Eligible Transportees (MCA 20-10-101)

To qualify as an eligible transportee a student must meet the following criteria:

- The student must reside at least 3 miles from the nearest operating public school or school bus stop.
- The student is considered to reside with his or her parent or guardian who maintains legal residence within the boundaries of the district furnishing the transportation regardless of where the eligible transportee lives when attending school.
- Transportation for the student must be listed as a related service in their Individual Education Plan (IEP). If this is the case, they are eligible even if they live within the three miles.

Note: Not all students receiving special education service are considered eligible riders. Only those students with transportation listed as a related service in their IEP are automatically eligible. Preschool children between the ages of 3 & 6 are always eligible even if the IEP does not address specialized transportation.

- The student must be between the ages of 5 and 21 or be a preschool child between the ages of 3 and 6 with a disability.

Out of District Transportation

When a student attends a school outside of his or her resident district, a Student Attendance Agreement (FP-14) must be completed by the district of residence and the district of attendance in order for the out-of-district student to be considered an eligible transportee. If no agreement is in place, the parent or guardian is responsible for all transportation costs.

When the trustees of a student's district of residence and district of attendance sign an FP-14 that includes transportation, either district may provide bus transportation or a pupil transportation contract, but not both.

See ***Individual Contracts*** for the rules on calculating the daily rate for an out-of-district individual contract. See School ***Bus Transportation*** for rules on calculating school bus rates per mile.

Attendance With Mandatory Approval (MCA 20-5-321)

Whenever a parent or guardian of a child, an agency of the state, or a court wishes to have a child attend a school under the provisions of this section, the parent or guardian, agency, or court shall complete an out-of-district attendance agreement in consultation with an appropriate official of the district the child will attend.

An out-of-district attendance agreement that allows a child to enroll in and attend a school in a Montana school district that is outside of the child's district of residence or in a public school district of a state or province that is adjacent to the county of the child's residence is mandatory whenever:

- the child resides closer to the school that the child wishes to attend and more than 3 miles from the school the child would attend in the resident district and;
- the resident district does not provide transportation; or
- the district of residence provides transportation and is not within the same county as the child's school district of choice;
- the child resides in a location where, due to road or geographic conditions, it is impractical to attend the school nearest the child's residence;
- the child is a member of a family that is required to send another child outside of the elementary district to attend high school and the child of elementary age may more conveniently attend an elementary school where the high school is located, provided that the child resides more than 3 miles from an elementary school in the resident district or that the parent is required to move to the elementary district where the high school is located to enroll another child in high school;

- the child is under the protective care of a state agency or has been adjudicated to be a youth in need of intervention or a delinquent youth, as defined in MCA 41-5-103; or
- the child is required to attend school outside of the district of residence as the result of a placement in foster care or a group home licensed by the state.

The attendance agreement must set forth the financial obligations, if any, for costs incurred for transportation as provided in MCA 20-5-323.

The amount, if any, charged for transportation may not exceed the lesser of the average transportation cost per student in the child's district of residence or 21.25 cents per mile. The average expenditures for the district transportation fund for the preceding school fiscal year must be calculated by dividing the transportation fund expenditures by the October 1 enrollment for the preceding fiscal year.

The transporting district may not charge the resident district or parent for "on-schedule costs" (i.e., costs reimbursed to the district from the state and county). Over-Schedule costs, which can be charged, are the difference between the total amount budgeted in the transportation fund and income expected from on-schedule reimbursements.

Except as noted in the following paragraph, the trustees of the resident district and the trustees of the district of choice shall approve the out-of-district attendance agreement and notify the county superintendent of schools in the county of the child's residence of the approval of the agreement within 10 days. The county superintendent shall approve the agreement for payment.

Unless the child is a child with a disability who resides in the district, the trustees of the district where the school to be attended is located may disapprove an out-of-district attendance agreement whenever they find that, due to insufficient room and overcrowding, the accreditation of the school would be adversely affected by the acceptance of the child.

Attendance with Discretionary Approval (MCA 20-5-32)

A child may be enrolled in and attend a school in a Montana school district that is outside of the child's district of residence or a public school in a district of another state or province that is adjacent to the county of the child's residence, subject to discretionary approval by the trustees of the resident district and the district of choice. If the trustees grant discretionary approval of the child's attendance in a school of the district, the parent or guardian may be charged tuition and may be charged for transportation.

- Whenever a parent or guardian of a child wishes to have the child attend a school under the provisions of this section, the parent or guardian shall apply to the trustees of the district where the child wishes to attend. The application must be made on an out-of-district attendance agreement form supplied by the district and developed by the superintendent of public instruction.
- The attendance agreement must set forth the financial obligations, if any, for tuition and for costs incurred for transporting the child.

- An out-of-district attendance agreement approved under this section requires that the parent or guardian initiate the request for an out-of-district attendance agreement and that the trustees of both the district of residence and the district of choice approve the agreement.
- If the trustees of the district of choice waive tuition, approval of the resident district trustees is not required. However, the child is an eligible transportee of the district of attendance only upon the resident district's approval of the attendance agreement with or without tuition charges.
- The trustees of a school district may approve or disapprove the out-of-district attendance agreement consistent with state regulations and the policy adopted by the local board of trustees for out-of-district attendance agreements.
- The trustees of the district where the child wishes to attend have the discretion to approve any attendance agreement.

Discretionary Transportation and Payment (MCA 20-10-122)

The trustees of any district also may provide school bus transportation to any pupil of a public school who is not an eligible transportee of the district:

- on a school bus conveying eligible transportees when the ineligible transportee will not displace an eligible transportee from such school bus because of the lack of seating capacity;
- on a school bus operated by the district for the sole purpose of providing transportation for ineligible transportees. Such school bus shall service those children living the greatest distance from the school to be attended; and
- on a school bus operated for the purpose of relieving congestion in a school building or to avoid the necessity of erecting a new building or for any other reasons of economy or convenience.

When the trustees of a district provide school bus transportation to an ineligible transportee, the district may charge each ineligible transportee his proportionate share, as determined by the trustees, of the cost of operating such school bus. Money realized from such payments shall be deposited to the credit of the transportation fund.

Transporting Non Public School Children (MCA 20-10-123)

Any child attending a nonpublic school may ride a school bus when a permit to ride such school bus is secured from the operating district by the parent or guardian of such nonpublic school child and when there is seating capacity available on such school bus. When a nonpublic school child rides a school bus, the operating district may charge such child his proportionate share, as determined by the trustees, of the cost of operating such school bus. Money realized from such payments shall be deposited to the credit of the transportation fund. (MCA 20-10-124)

Duties Of County Transportation Committee (MCA 20-10-132)

It is the duty of the county transportation committee to:

- establish the transportation service areas within the county, without regard to district boundary lines, for each district that operates a school bus transportation program;
- approve, disapprove, or adjust the school bus routes submitted by the trustees of each district in conformity with the transportation service areas established. In an emergency situation, the county superintendent may approve a temporary bus route change. A bus route change approved by the county superintendent must be confirmed by the county transportation committee within 30 days in order to be continued for a period longer than 30 days;
- approve, disapprove, or adjust applications, approved by the trustees, for increased reimbursements for individual transportation because of isolated conditions of the eligible transportee's residence. When an application for increased reimbursement for individual transportation is presented to the county transportation committee, it must include a signed individual transportation contract and a copy of the official minutes of the meeting at which the trustees acted upon the request for increased reimbursement; and
- conduct hearings to establish the facts of transportation controversies that have been appealed from the decision of the trustees and act on the appeals on the basis of the facts established at the hearing.

When the county transportation committee reviews a request for a new bus route or a change to an existing route, the committee shall consider the following:

- a map of the existing and proposed bus route;
- a description of turnarounds;
- conditions affecting safety;
- the total mileage and change in mileage of the affected bus route;
- the approximate total cost;
- reasons for the proposed bus route change;
- the number of children to be served;
- a copy of the official minutes of the meeting at which the school trustees approved the new bus route or route change; and
- any other information that the county transportation committee considers relevant.

Duties Of Board Of Public Education (MCA 20-10-111)

The board of public education, with the advice of the Montana department of justice and the superintendent of public instruction, shall adopt and enforce policies, not inconsistent with motor vehicle laws to provide uniform standards and regulations for the design, construction, and operation of school buses in the state of Montana.

These policies must:

- prescribe minimum standards for the design and construction of school buses not inconsistent with minimum standards adopted by the national conference on school transportation; or minimum standards adopted by the national highway traffic safety administration;
- prescribe standards and specifications for the lighting equipment and special warning devices to be carried by school buses in conformity with current specifications approved by the society of automobile engineers, motor vehicle laws, and the requirement that all school buses have an alternately flashing prewarning lighting system of four amber signal lamps to be used while preparing to stop and an alternately flashing warning lighting system of four red signal lamps to be used while stopped to load and unload school children;
- establish other driver qualifications considered necessary in addition to the qualifications required in MCA 20-10-103;
- prescribe criteria for the establishment of transportation service areas for school bus purposes by the county transportation committee that shall allow for the establishment of service areas without regard to the district boundary lines within the county;
- prescribe other criteria for the determination of the residence of a pupil that may be considered necessary in addition to the criteria established in MCA 20-10-105;
- prescribe other policies for the operation of school buses that are not inconsistent with motor vehicle laws, minimum standards adopted for school bus operation by the national conference on school transportation, highway safety standards, and the transportation provisions of this title; and
- prescribe standards for the measurement of the child seating capacity of school buses, to be known as the rated capacity.

The board of public education shall prescribe other policy necessary for the proper administration and operation of individual transportation programs that are not inconsistent with the transportation provisions of this title.

Duties of Superintendent of Public Instruction (MCA 20-10-112)

In order to have a uniform and equal provision of transportation by all districts in the state of Montana, the superintendent of public instruction shall:

- prescribe rules and forms for the implementation and administration of the transportation policies adopted by the board of public education;
- prescribe rules for the approval of school bus routing by the county transportation committee;
- prescribe the format of the contract for individual transportation and supply each county superintendent with a sufficient number of such contracts;

- prescribe rules for the approval of individual transportation contracts, including the increases of the schedule rates due to isolation under the policy of the board of public education, and provide a degree-of-isolation chart to school district trustees to serve as a guide;
- approve, disapprove, or adjust all school bus routing submitted by the county superintendent;
- approve, disapprove, or adjust all individual transportation contracts submitted by the county superintendent;
- prescribe rules for the consideration of controversies appealed to him and rule on such controversies; and
- disburse the state transportation reimbursement in accordance with the provisions of law and the transportation policies of the board of public education.

Penalty for Violating Law or Rules (MCA 20-10-104)

Every district, its trustees and employees, and every person under a transportation contract with a district is subject to the policies prescribed by the board of public education and the rules prescribed by the superintendent of public instruction. When a district knowingly violates a transportation law or board of public education transportation policy, the district shall forfeit any reimbursement otherwise payable by the state and by the county for any bus miles actually traveled during that fiscal year in violation of the law or policies.

A district knowingly violates a transportation law or board of public education policy when it operates a bus route in a manner that does not comply with state law or board policy relating to student safety.

A district that operates a bus route not approved by its county transportation committee may not receive transportation reimbursement on that route, but if the route is operated in compliance with transportation law, the operation of the route is not a violation that will result in the forfeiture of all transportation aid to the district.

When a person operating a bus under contract with a district knowingly fails to comply with the transportation law or the board of public education transportation policies, the district may not pay the person for any bus miles traveled during the contract year in violation of law or policies. Upon discovering a violation, the trustees of the district shall give written notice to the person that unless the violation is corrected within 10 days of the giving of notice, the contract will be canceled. The trustees of a district shall order the operation of a bus operated under contract suspended when the bus is being operated in violation of transportation law or policies and the trustees find that the violation jeopardizes the safety of pupils.

Determination Of Residence (MCA 20-10-105)

When the residence of an eligible transportee is a matter of controversy and is an issue before a board of trustees, a county transportation committee, or the OPI, the residence must be established on the basis of the general state residence law as provided in MCA 1-

1-215. Whenever a county is determined to be responsible for paying tuition for any pupil in accordance with MCA 20-5-321 through MCA 20-5-323, the residence of the pupil for tuition purposes is the residence of the pupil for transportation purposes.

Residence -- rules for determining. Every person has, in law, a residence. In determining the place of residence, the following rules are to be observed:

- It is the place where a person remains when not called elsewhere for labor or other special or temporary purpose and to which the person returns in seasons of repose.
- There may only be one residence. If a person claims a residence within Montana for any purpose, then that location is the person's residence for all purposes unless there is a specific statutory exception.
- A residence cannot be lost until another is gained.

The residence of a minor's parents or, if one of them is deceased or they do not share the same residence, the residence of the parent having legal custody or, if neither parent has legal custody, the residence of the parent with whom the minor customarily resides is the residence of the unmarried minor. In case of a controversy, the district court may declare which parental residence is the residence of an unmarried minor.

The residence of an unmarried minor who has a parent living cannot be changed by either the minor's own act or that of the minor's guardian. The residence can be changed only by the union of act and intent. (MCA 1-1-215)

Determination Of Mileage Distances (MCA 20-10-106)

When the mileage distance that transportation services are to be provided is a matter of controversy and is an issue before a board of trustees, a county transportation committee, or the superintendent of public instruction, the mileage shall be established on the following basis:

- The distance in mileage shall be measured by a vehicle equipped with an accurate odometer.
- A representative of the applicable district and a parent or guardian of the child to be transported shall be present when the distance is measured.
- The measurement shall begin 6 yards from the family home and end 6 yards from the entrance of the school grounds closest to the route.
- The route traversed for the measurement shall be the route designated by the trustees, except that the route shall be reasonably passable during the entire school fiscal year by the vehicle that provides the child's transportation. In determining reasonable passage, a route may not be disqualified because it is impassable during temporary, extreme weather conditions such as rain, snow, or floods.

Budgeting For Pupil Transportation (MCA 20-10-143)

The purpose of the transportation fund is to finance the maintenance and operation of district owned school buses, contracts with private carriers for school bus service, individual transportation contracts, and any amount necessary for the purchase, rental, or insurance of school buses or operation of the transportation program.

The transportation fund is limited to the services provided for home-to-school transportation. Expenditures for activity trips or school-to-school transportation should not be included.

Beginning with school year 1999-2000, school districts are subject to tax limitations of SB 184 when budgeting the taxes needed to support the transportation fund. The Office of Public Instruction distributes annual worksheets to the clerk and superintendent for determining these limits. An election may be necessary to raise additional taxes.

The transportation fund budget must include:

- an adequate amount to finance the maintenance and operation of school buses owned and operated by the district;
- the annual contracted amount for the maintenance and operation of school buses by a private party;
- the annual contracted amount for individual transportation, including any increased amount because of isolation, which may not exceed the schedule amounts prescribed in MCA 20-10-142;
- any amount necessary for the purchase, rental, or insurance of school buses; and
- any other amount necessary to finance the administration, operation, or maintenance of the transportation program of the district, as determined by the trustees.

The trustees shall report the transportation fund budget on the regular budget form prescribed by the in accordance with MCA 20-9-103, and the adoption of the transportation fund budget must be completed in accordance with the school budgeting laws. When the adopted final budget is sent to the county superintendent, the trustees shall also send copies of all completed transportation contracts for school bus transportation to the county superintendent. The contracts must substantiate all contracted school bus transportation services incorporated in the final budget.

The reimbursement a district may receive from the state and county is equal to the lesser of the amount claimed using the reimbursement formulas or the amount of the district's on-schedule budget. It is imperative for districts to budget accurately in order to receive their full reimbursement. See **APPENDIX F** for Pupil Transportation Worksheets, which can be used to estimate your district's on-schedule reimbursement from the state and county.

A contingency amount may be included in the districts budget. Claims for reimbursement may be made against the contingency funds for unforeseen increases in district transportation obligations. The contingency amount is limited to 10% of the regular on-

schedule amount. If 10% of the transportation schedule amount is less than \$100, then \$100 is the maximum limitation for the budgeted contingency amount.

Transportation Budget Amendments

A budget amendment to the transportation fund budget may be adopted subject to the provisions of MCA 20-9-161 through MCA 20-9-166.

- Whenever the trustees adopt a budget amendment for the transportation fund, the trustees shall attach to the budget amendment a copy of each transportation contract that is connected with the budget amendment and that has been prepared and executed in accordance with the school transportation contract laws.
- After the trustees have adopted the budget amendment by a majority vote of the trustees, the presiding officer of the trustees and the clerk of the district must sign it and copies must be sent to the county superintendent and the superintendent of public instruction.
- Whenever a final budget amendment has been adopted for the transportation fund, the trustees may apply to the superintendent of public instruction for an increased payment for state transportation reimbursement.
- When the superintendent of public instruction approves an application, the superintendent of public instruction shall determine the additional amount of the state transportation reimbursement that will be made available to the applicant district because of the increase in enrollment or additional pupil transportation obligations.

The superintendent of public instruction shall notify the applicant district of the superintendent's approval or disapproval and, in the event of approval, the amount of additional state aid that will be made available for the transportation fund. The superintendent of public instruction shall disburse the state aid to the eligible district at the time the next regular state aid payment is made.

State Transportation Reimbursement (MCA 20-10-145)

A district providing school bus transportation or individual transportation in accordance with applicable state regulations, board of public education transportation policy, and transportation rules must receive a state reimbursement of its transportation expenditures under the transportation reimbursement rate provisions of MCA 20-10-141 and MCA 20-10-142.

The state transportation reimbursement is one-half of the reimbursement amounts established in MCA 20-10-141 and MCA 20-10-142 or one-half of the district's on schedule transportation fund budget, whichever is smaller, and must be computed on the basis of the number of days the transportation services were actually rendered, not to exceed 180 pupil-instruction days.

In determining the amount of the state transportation reimbursement, an amount claimed by a district may not be considered for reimbursement unless the amount has been paid in the regular manner provided for the payment of other financial obligations of the district.

Requests for the state transportation reimbursement must be made by each district semiannually during the school fiscal year on the TR-5 Individual and Isolated Claim forms and/or the TR-6 School Bus Transportation Claim forms provided to the districts by the superintendent of public instruction.

- The claims for state transportation reimbursements must be routed by the district to the county superintendent, who after reviewing the claims shall send them to the superintendent of public instruction.
- The superintendent of public instruction shall establish the validity and accuracy of the claims for the state transportation reimbursements by determining compliance with this state regulation, board of public education transportation policy, and the transportation rules of the superintendent of public instruction.
- After making any necessary adjustments to the claims, the superintendent of public instruction shall order a disbursement from the state money appropriated by the legislature of the state of Montana for the state transportation reimbursement. The payment of all the district's claims within one county must be made to the county treasurer of the county, and the county superintendent shall apportion the payment in accordance with the apportionment order supplied by the superintendent of public instruction.

School Transportation Not Reimbursable During Emergency (MCA 10-3-104)

The authority of the Governor under MCA 10-3-104 to suspend the provisions of a regulatory statute during an emergency is discretionary. Therefore, when nothing in the Governor's executive order declaring a state of emergency specifically mentioned reimbursement for school transportation under this section, the state was not required to reimburse the costs for school bus transportation for districts closed in accordance with the declaration of emergency. 43 A.G. Op. 29 (1989)

County Transportation Reimbursement (MCA 20-10-146)

The apportionment of the county transportation reimbursement by the county superintendent for school bus transportation or individual transportation must be the same as the state transportation reimbursement payment, except that:

- If any cash was used to reduce the budgeted county transportation reimbursement as prescribed in (MCA 20-10-144(2)(b)), the annual apportionments limited to the budget amount;
- when the county transportation reimbursement for a school bus has been prorated between two or more counties because the school bus is conveying pupils of more than one district located in the counties, the apportionment of the county transportation reimbursement must be adjusted to pay the amount computed under the proration; and

- when county transportation reimbursement is required under the mandatory attendance agreement provisions of MCA 20-5-321.

The county transportation net levy requirement for the financing of the county transportation fund reimbursements to districts is computed by the provisions of MCA 20-10-146 (2).

The net levy requirement determined in above must be reported to the county commissioners on the fourth Monday of August by the county superintendent, and a levy must be set by the county commissioners in accordance with MCA 20-9-142.

The county superintendent shall apportion the county transportation reimbursement from the proceeds of the county transportation fund. The county superintendent shall order the county treasurer to make the apportionments in accordance with MCA 20-9-212(2) and after the receipt of the semiannual state transportation reimbursement payments.

Reimbursement Schedule

The superintendent of public instruction orders disbursement of the state transportation reimbursement semiannually. Payment for first semester claims is made in March and payment for second semester claims is made in June. The payment of all the districts' claims within one county is made to the county treasurer. The county superintendent apportions the payment in accordance with the apportionment order supplied by the superintendent of public instruction.

The county superintendent shall order the county treasurer to make the apportionment of the county share of the payment after the receipt of the semiannual state transportation reimbursement payments.

Bus Depreciation Reserve (MCA 20-10-147)

The trustees of a district owning a bus or a two-way radio used for purposes a district's conveyance of a pupil by a school bus between the pupil's legal residence or an officially designated bus stop and the school designated by the trustees for the pupil's attendance, or for purposes of conveying pupils to and from school functions or activities may establish a Bus Depreciation Reserve fund to be used for the conversion, remodeling, or rebuilding of a bus or for the replacement of a bus or radio.

Conversion, remodeling or rebuilding of a bus may include addition of wheel chair lifts and tie-downs, recovering or replacing all seats, major brake overhauls, engine replacements and rebuilds, and similar major structural work done to modernize or extend the bus's useful life. Routine maintenance such as replacing tires or recovering an individual seat should be charged to the transportation fund instead of the bus depreciation fund.

The trustees of a district may also use the Bus Depreciation Reserve fund to purchase an additional school bus for purposes of a district's conveyance of a pupil between the pupil's legal residence or an officially designated bus stop and the school designated by the trustees for the pupil's attendance.

School district trustees must conform their budget to the accounting procedure prescribed by the superintendent of public instruction, which requires paying the expenses of activity buses under the general fund rather than the transportation fund.

The Bus Depreciation Reserve cannot be used to pay expenses for operation of activity buses.

When a Bus Depreciation Reserve fund is established, the trustees may include in the district's budget an amount each year that does not exceed 20% of the original cost of a bus or a two-way radio. The amount budgeted may not, over time, exceed 150% of the original cost of a bus or two-way radio.

Note: "Cost" is usually the purchase price less trade-ins, but using the unadjusted purchase price is a legal alternative.

There is no limit on the number of years a district may use to depreciate the bus.

Any expenditure of Bus Depreciation Reserve fund money must be within the limitations of the district's final bus depreciation reserve fund budget and the school financial administration provisions of this title and may be made only to convert, remodel, or rebuild buses, to replace the buses or radios, or for the purchase of an additional school bus for which the Bus Depreciation Reserve fund was created.

Whenever a district maintaining a Bus Depreciation Reserve fund sells all of the district's buses a portion of or all of the reserve balance may be transferred to any other fund maintained by the district. The electors of a district must approve such a transfer in a school election.

Use of Nonconforming Vehicles (Vans) & Bus Depreciation Fund

Federal requirements regulate new vehicles that carry 11 or more persons that are sold for transporting students to or from school or school related events. Those vehicles are required to meet all Federal Motor Vehicle Safety Standards for school buses. The FMVSSs applicable to school buses require that school buses have stop arms along with many other safety features over and above those of other passenger vehicles. Under 49 U.S.C. 30101, etseq., a vehicle is regarded as being sold for use as a school bus if, at the time of sale, it is evident that the vehicle is likely to be significantly used to transport students to or from school or school related events. This statute applies to school buses sold to public as well as parochial schools. Thus, a dealer selling a new 15-passenger van to be used for school transportation must ensure that the van is certified as meeting our school bus FMVSSs.

Federal regulations do not prohibit the use of vans by schools, but require any van (with a capacity of more than 10) sold or leased for use as a school bus to meet the safety standards applicable to school buses. Federal regulations apply only to the manufacture and sale/lease of new vehicles. Each State prescribes its own regulations that apply to the use of any vehicle that is used to transport students.

The Bus Depreciation Fund can be used to purchase additional or replace existing yellow school buses that meet school bus standards and are used for home-to-school transportation. The Bus Depreciation Fund can also be used to replace a bus used for school functions or activities.



YES

These buses can be purchased/replaced with the bus depreciation fund. The yellow buses meet school bus standards. The other is an over the road coach.



NO

Neither of these vehicles meet school bus standards, and neither qualify as an over the road coach.

Requirements for School Bus Drivers (MCA 20-10-103)

In order to receive reimbursement for a bus route, the bus driver must hold a valid Montana Bus Driver Certificate (TR-35). The certificate is a form of an affidavit signed by the Board of Trustees that the driver has fulfilled all necessary requirements. In order to receive a certificate a bus driver must:

- hold a valid commercial license with the necessary endorsements,
- have completed a basic first aid course and hold a valid certificate, and
- have filed a satisfactory medical examination report signed by a licensed physician.

A Montana School Bus Driver Certificate remains valid until the earliest expiration date of the driver's license, first aid certificate, and/or physical examination. A new certificate must be issued to the driver when any of the above expires. The district must file copies of the certificate with the county superintendent and the superintendent of public instruction.

In addition to the above requirements, the board of public education requires that all Montana school bus drivers be not less than eighteen years of age and have five years of licensed driving experience. Each driver shall attend not less than 10 hours of in-service training annually. The district must design and implement a driver-training program that

meets the needs of the district and the driver. Records of the required training must be kept in a file at the district office for audit purposes.

The local school district has the right, in accordance with written district policy, to set qualifications in addition to the state requirements.

First Aid Certificate

In the event a district (or contractor) is obligated to employ a driver as a replacement for a driver employed at the beginning of the school year, or must employ an additional driver, a period of sixty days is permitted for the new driver to acquire the first-aid certificate. If after sixty days following the date of first employment of the additional or replacement driver, the first-aid requirement has not been met, the bus operated by the driver will not qualify for reimbursement for that portion of the year that the driver is not qualified, including the sixty-day grace period. (ARM 10.7.111(3))

Drug And Alcohol Testing Of Bus Drivers

The 1991 Federal Omnibus Transportation Employee Testing Act imposes a number of requirements on employers of safety sensitive employees. A variety of drug and alcohol tests are required -- pre-employment, reasonable suspicion, post-accident, random, return to duty, and follow-up. An employer must do annual random tests of safety sensitive employees--at least 25 percent must be tested for alcohol and 50 percent for drugs. Testing must meet the standards set by the Federal Department of Health and Human Services. Employees must be provided information on alcohol and drug misuse and the testing requirements. Supervisory employees must receive additional training on recognizing substance abuse. The new rules also define what alcohol-related conduct is prohibited while performing safety sensitive functions.

Employers are responsible for the testing programs. (If a district contracts for its transportation the contractor, not the district, may be the employer. This possibility should be discussed with the contractor and the district's legal counsel.) Testing responsibilities can be met using district employees, contracting for services, or joining a consortium.

This is a federal law and it assigns no authority or responsibility to the Office of Public Instruction (OPI) for implementation or compliance.

For more information refer to the "Guide to Drug Testing in Montana" disseminated with this manual.

School Bus Requirements

Only school buses that pass the Department of Justice's semiannual school bus inspection will receive state and county transportation. The Montana Highway Patrol conducts the inspections using the TR-13 form, which is then forwarded to the superintendent of public instruction. Buses must be inspected before the beginning of the first semester and no later than January 31 for the second semester. (MCA 61-9-502) (ARM 10.7.110)

Districts and contractors are responsible for contacting the highway patrol to schedule inspections.

The Board of Public Education establishes school bus standards upon which the inspections are based. A current copy of the "Minimum Standards for School Buses in Montana" is available upon request from the superintendent of public instruction.

TR-1 Bus Route Forms

The TR-1 School Bus Route Registration form must be completed by the board of trustees for each school bus route that receives state reimbursement. If any route changes occur during the school year, the district must submit an amended TR-1 form to the county transportation committee for approval. The county transportation committee will then forward the amended TR-1 form to the superintendent of public instruction.

For routes carrying at least one eligible rider, the trustees send two copies of a TR-1 for each route to the county superintendent by October 1. No later than October 15, the county superintendent must send one copy of a TR-1 for each route carrying at least one eligible rider to the superintendent of public instruction for approval.

A school district may record this count using a form TR-2, pupil list, provided by the superintendent of public instruction, or a checklist of the districts own design. This list must be kept in the district office for audit purposes.

Requirements For School Bus Routes

In order for a school bus route to receive state and county reimbursement, the school bus route must conform to the following regulations.

- The route (consisting of the area served and the miles per day) must be established by the board of trustees, by board resolution.
- The route must be approved by the county transportation committee.
- A district may not extend a bus route to transport pupils from outside its transportation service area unless the district has a written agreement with the district that the county transportation committee has assigned to transport the pupils.
- Written agreements must state the school year for which the agreement applies, and the agreement is only good for that school year. Annual agreements are recommended.
- The county transportation committee may not approve only a portion of a route. The route must be approved or denied in its entirety.
- The vehicle operating on the route must meet minimum standards for school buses adopted by the board of public education. The vehicle operating on the route must be inspected and approved by the Montana highway patrol semiannually.
- The driver of the vehicle must be qualified according to MCA 20-10-103.

State and county reimbursement is not authorized for routes operated outside the term of the regular school year for days in excess of 180 days per school year or for days that the route was not operated.

When the board of trustees changes a route's mileage per day, the trustees must amend the TR-1 bus route form, show the effective date of the change, submit it first to the county transportation committee for approval and then to the Office of Public Instruction. When the claims for payments are submitted, the district will report the number of days the route operated at each mileage amount. The Office of Public Instruction will adjust the reimbursement for the route and will pay the adjusted rate for days the route operates after the date the change in mileage became effective, subject to constraints of the budget or budget amendments.

When routes are extended it is up to the district to determine if a budget amendment is required to cover the additional costs of the route.

Trustees who object to a route operated by another district can appeal to the county transportation committee. If they agree, the transportation committee must issue a written warning to the district. If the district continues to operate the route in violation, the committee may withdraw their approval of that route. This would cause the route to be ineligible for reimbursement.

When the county transportation committee reviews a request for a new bus route or a change to an existing route, the committee shall consider the following:

- a map of the existing and proposed bus route;
- a description of turnarounds;
- conditions affecting safety;
- the total mileage and change in mileage of the affected bus route;
- the approximate total cost;
- reasons for the proposed bus route change;
- the number of children to be served;
- a copy of the official minutes of the meeting at which the school trustees approved the new bus route or route change; and
- any other information that the county transportation committee considers relevant.

The county transportation committee cannot approve a district route that enters another district unless a written agreement exists that allows entry of the out-of-district bus.

School Bus Reimbursement Rates

School bus routes that meet the state regulations and are approved by the county transportation committee are eligible for reimbursement from the state and county based on the following rates.

- Nonbus mileage is reimbursable for a vehicle driven by a bus driver to and from an overnight location of a school bus when the location is more than ten miles from the school. Nonbus mileage is reimbursed fifty cents per mile.
- The number of pupils riding the school bus may not exceed the passenger seating positions of the bus. For guidance on school bus seat capacity see the position paper titled "School Bus Seat Capacity" in the position paper section of this manual.

The rate for each bus mile traveled must be determined in accordance with the following schedule:

- \$0.95 for a school bus with a rated capacity of not more than 49 passenger seating positions
- \$1.15 for a school bus with a rated capacity of 50 to 59 passenger seating positions
- \$1.36 for a school bus with a rated capacity of 60 to 69 passenger seating positions
- \$1.57 for a school bus with a rated capacity of 70 to 79 passenger seating positions
- \$1.80 for a school bus with a rated capacity 80 or more passenger seating positions

TIPS and HINTS

If the route serves more than one legal entity, the total semester reimbursement is split between the legal entities according to the percentages reported on the TR-1. The percentages reported on the TR-1 should be the same as were used to calculate the on-schedule budget for each legal entity.

The method of splitting the cost between school districts that share a school bus route is left to the discretion of the districts. Use a reasonable method applied on a consistent basis. The state and county reimbursement is made as requested on the TR-1 form.

A district must budget enough on-schedule money to cover the amount of reimbursement that is calculated. The state and county pay the lower of the budgeted amount or the claimed amount.

The school transportation reimbursement program does not pay a higher rate for transporting special needs students even though the transportation costs for such students is often greater.

Claims for reimbursement for bus routes are made semiannually on the TR-6 forms. The number of days the bus route was driven and the social security number of the bus driver are reported on the form.

Individual Transportation

The tendering of a contract to the parent or guardian whereby the district would pay the parent or guardian for individually transporting the pupil or pupils shall fulfill the district's obligation to furnish transportation for an eligible transportee. Individual transportation may include:

- paying the parent or guardian for individually transporting the pupil;
- paying board and room reimbursements;
- providing supervised correspondence study; or
- providing supervised home study.

With sufficient notice, a school district may refuse to approve an individual contract that is submitted to the district after the fourth Monday in June unless the pupil is an eligible transportee who establishes residence in the district after the fourth Monday in June. The state may honor valid individual contracts, which are approved by the district after that date. In no case may the district honor a contract submitted after the last pupil instruction day of the school year at the school of attendance.

Four copies of the contract form are needed: one for the family, one for the district clerk, one for the county superintendent, and one for the superintendent of public instruction.

The board of trustees is prohibited from issuing warrants on the transportation budget in the absence of a contract. State reimbursement is paid only on claims supported by valid contracts.

When making an individual transportation contract with the district, the parent, legal guardian or emancipated minor must sign an affidavit attesting to the place of residence of the student. No person other than the student's parent, legal guardian or an emancipated minor may enter into an individual contract for transportation or receive the transportation reimbursement. A licensed driver in an insured vehicle must provide transportation.

Contracts made between a school district and a parent, legal guardian or emancipated minor is designated as form TR-4. The same contract form is used for both elementary and high school pupils.

The maximum daily reimbursement rate a parent, legal guardian or emancipated minor may receive for a mileage contract is the daily rate he or she would receive under a room and board contract, unless the contract has been approved for isolation.

To be eligible to receive reimbursement for a mileage contract, transportation for the mileage reported on the contract must actually occur. The district may not claim state or county reimbursement or pay a parent, legal guardian or emancipated minor for transportation on days the student does not attend school.

If the contracting party applies for increased individual transportation payments due to isolation, the contract must be completed and signed in advance of the meeting of the county transportation committee at which such applications are approved or disapproved. (The date of this meeting in any county can be obtained from the county superintendent.)

Approval of any increased rates by the county transportation committee precedes budget adoption.

The district clerk transmits each transportation contract to the county superintendent no later than July 1. By July 10, the county superintendent transmits the original copy of each transportation contract to the superintendent of public instruction.

When the district clerk writes warrants for transportation payments to the parent, legal guardian, or the emancipated minor, he or she must be guided by and in accordance with the approved rates established by MCA 20-10-142.

Contracts for Out-of-District Pupils

A school district may enter into a contract for the provision of individual transportation only if the student being transported is an eligible transportee of the district. When a student attends school outside his or her district of residence under an out-of-district attendance agreement approved by the district of residence, either the district of attendance or the district of residence, but not both, may consider the student an eligible transportee for purposes of contracting to provide transportation reimbursement or to provide bus services.

The distance from the home to the nearest operating school or bus stop will be used to calculate the reimbursement under a pupil transportation contract unless:

- the student is attending school under the protective care of a state agency or has been adjudicated to be a youth in need of intervention or a delinquent youth; or
- the student is required to attend school outside of the district of residence as the result of a placement in foster care or a group home licensed by the state; or
- the student is attending school under an Individual Education Plan (IEP) wherein the district of residence specifies services will be provided by enrolling the pupil in another district.

If the student is attending school under one of these mandatory provisions, the distance from the home to the nearest appropriate school or bus stop will be used to calculate the amount of reimbursement under an individual contract for transportation.

The nearest operating school is the nearest elementary or high school that the student could reasonably attend, offering educational services appropriate for the grade level of the student. Whether the school is in the district of attendance or the district of residence is irrelevant. The nearest bus stop is the nearest bus stop where the student could board a bus to the elementary or high school offering educational services appropriate for the grade level of the student that the student could reasonably attend, regardless of whether the bus stop is provided by the district of attendance or the district of residence.

If an approved out-of-district attendance agreement that includes terms for providing transportation does not exist between the district of residence and the district of attendance, the parent or guardian shall provide transportation at his own expense.

Calculating the Daily Rate For Individual Contracts

The formula to calculate the daily reimbursement rate is:

$$\text{Daily rate} = [(\text{one-way mileage/trip} - 3 \text{ miles/trip}) \times \text{number of trips/day}] \times .25$$

If your school offers _ day kindergarten, and there is not a school bus available for the mid-day trip, then parents of eligible transportees may be eligible to receive payment for a one-way trip. The one-way daily rate would be calculated as follows.

$$(\text{Distance from home to school (one way)} - 3) \times .25$$

The following rules apply when calculating the daily reimbursement rate for a contract.

- Reimbursement is made only for the portion of the trip that a student is in the car (one round-trip per day).
- Mileage should be measured to the tenth of a mile.
- The reimbursement rate beginning July 1, 2001 is \$0.25 per mile.
- The minimum daily reimbursement rate is \$0.25 per day.

Sample Calculations

If the one way mileage from home to school is 10 miles, the daily reimbursement rate is:

$$\text{Daily rate} = [(10 \text{ miles/trip} - 3 \text{ miles/trip}) \times 2 \text{ trips/day}] \times \$0.25/\text{mile} = \$3.50/\text{day}$$

If a parent is transporting a child one direction each day and a bus comes within three miles of the home once per day, the daily reimbursement rate would be:

$$\text{Daily rate} = [(10 \text{ miles/trip} - 3 \text{ miles/trip}) \times 1 \text{ trip/day}] \times \$0.25/\text{mile} = \$1.75/\text{day}$$

The daily rate for an individual transportation contract may not exceed \$9.25/day for the first eligible transportee and \$6.00/day for each additional transportee.

Isolation

When, because of excessive distances, impassable roads, or other special circumstances exist, families may apply to a district to receive an isolation rate. The rate is \$0.375/mile which is equal to 1 1/2 times the standard rate of \$.25/mile.

Before an increased rate because of isolation may be paid to the requesting parent or guardian, the rate must be approved by the district, the county transportation committee and the superintendent of public instruction. Regardless of the action of the trustees, when approval is given by the committee and the superintendent of public instruction, the trustees shall pay the increased rate.

The capping of mileage reimbursement rates at the room and board rate does not apply to isolation contracts. (10.7.116 (5) ARM)

A guide for determining isolation can be found in ARM 10.7.116.

Shared Contracts

The reimbursement rate may be split equally between school districts when parents are transporting two or more eligible transportees. The law is specific about when the split should apply. Distance between schools and differences in the starting time of classes may affect whether contracts are shared or not shared.

Room and Board

When isolated conditions require an eligible transportee to live away from the family home in order to attend school, the transportee is eligible for the room and board reimbursement. The per diem rate for room and board is \$9.00 for one eligible transportee and \$6.00 for each additional transportee of the same household.

If one transportee is a student in a high school district and another student in the family is in the elementary district, the high school district shall pay the higher rate of \$9.25/day.

Correspondence

The reimbursement rate of supervised home study or supervised correspondence study is the cost of the study, provided that the course of instruction is approved by the trustees and supervised by the district.

Chapter 2

OPERATING RECOMMENDATIONS

The following is a collection of recommendations to guide districts in operating a safe, effective and efficient school transportation program. These are recommendations and are not policy unless adopted by the school district or by the Board of Public Education.

Routing and Scheduling Recommendations

It is necessary to procure a map of the area served by a particular school or school system in order to establish bus routes that will adequately meet the needs of pupils in a particular area. Information on the road conditions, railroad crossings and other factors that might affect the particular operation should be recorded along with the location of homes and the number of school-age children in each. See route hazard identification, APPENDIX B.

Satisfactory school bus stops must be identified along streets and highways where buses can travel with the least amount of risk.

The number of pupils to be transported and the distance to be traveled are primary factors in allocating equipment for a particular area. Pupils should be assigned to specific stops according to walking distances, grade level and the school attended.

Consideration should be given to the distances between stops to comply with the minimum distance required to activate the red and amber lighting systems.

Routing techniques: There are an infinite number of routing techniques that can be used. The following are examples:

- A circular route circumscribes an area by using different roads on outgoing and incoming trips. It has the advantage of equalizing time in transit for transported pupils since the first child on in the morning is the first child off in the evening.
- A shoestring route extends from the school to some terminal point in the district. If the bus is stored at the school, the same road or roads are used on the outgoing and incoming trips; consequently, children are always traveling more or less directly toward the school.
- A feeder route extends from a point farther out in the district to a transfer point on the main route. It may be advisable for one or more of the following reasons:
 - to limit the use of large buses to improved roads;
 - to reduce travel time on the main route; or
 - to provide some form of transportation on roads which at times may be impassable by larger, more desirable motor vehicles.

A shuttle route extends between two or more school buildings. Such routes are often required for the transfer of pupils in districts operating two or more schools.

Retracing routes can eliminate the need for pupils to cross the roadway.

Emergency routes should be established and utilized in all school systems when weather or road conditions dictate that it is not safe to travel on other than hard-surfaced roads. Announcements can be made by radio or other means when such routings are to be used. Computer-assisted routing may be an effective tool.

Methods of serving bus routes

The single trip plan involves a morning and an afternoon trip by one bus on each route. This form of service is well adapted to sparsely settled area. It also meets the needs of schools where the instructional program requires both elementary and secondary pupils to arrive at the same time.

The double trip plan calls for each bus to cover two different routes in the morning and afternoon. This plan is suited to districts of relatively dense population where distances are not great. As children of all grades are carried on each trip, program adjustments in the instructional schedule are necessary to avoid idle waiting time at the school. If these adjustments can be made without sacrificing the interests of the children, the double trip may be economical by requiring fewer buses.

The multiple or dual trip plan calls for more than two trips each morning and afternoon over the same route by each bus. This arrangement is feasible only where route distances are relatively short or time differences between locations are great. High school pupils may be brought to school on the first morning trip with elementary children arriving on the second trip. In the afternoon, the elementary children should be brought home first if it is desired that the elementary day be shorter than the high school day. Districts whose program requires a day of equal lengths for both groups may transport the high school pupils on the first trip in the morning and return them on the first trip in the afternoon.

Survey And Stops

A survey should be conducted by the pupil transportation director for the purpose of identifying factors that might indicate the need for a route change. After the survey is completed, a time study should be made by driving over the route in the same equipment that will be used in the actual operation. The driver(s) who will operate over the route(s) should regard the trip as a dry run. All scheduled stops and times between stops should be indicated. This data, if accurately obtained, will permit the development of a schedule that probably will need little revision once it is placed into effect.

After the route has been established, a schedule showing individual stops should be available in the bus for the information of substitute drivers.

Requests for new or additional service should be investigated thoroughly before a change is made.

Stops should be established only after thorough investigation has revealed the location to be the most desirable in the area.

It is considered poor practice to negotiate a U-turn on main arteries of traffic even though provisions for such turns may have been made. The projection of the rear end of the bus into inside traffic lanes from medians that are too narrow to accommodate bus length often creates traffic interference that places the lives of transported pupils in jeopardy.

Stops should always be located at a distance from the crest of a hill or curve to allow motorists traveling at the posted speed to stop within the sight distance.

Additional precautions should include, but may not be limited to, the following:

- Determine the location and destination of all pupils to be transported.
- Provide the driver, attendance officer, and the transportation office with the following information:
 - A list of pupils on the bus(es);
 - Approximate times for pick up and return of pupils;
 - A map indicating routing of the bus and pupil locations; and
 - Identification of pupils with dormant medical problems that may require specific actions from the driver in the event the problem becomes active.
- Provide parents or guardians of all pupils with the driver's name, bus number, pick up and return times, school closing information, school calendar, procedures to challenge routing decisions, etc.
- Determine the advisability of utilizing computer-assisted route scheduling.
- Plan routes that will permit optimum pupil safety, program efficiency and operational economy.

Also see School Bus Route Hazard Identification, APPENDIX B. The National Association of State Directors of Pupil Transportation Services undertook activities to develop a school bus route hazard identification system and a means of educating school bus drivers about such hazards.

Recommendations For Pupil Management

An effective pupil management program is a collaborative effort involving many groups of people in the school community. Parents, students, school bus drivers, school administrators, contract managers in districts where contract transportation is provided, law enforcement, and social service agencies must be part of the on going process to motivate students to good behavior. It is the responsibility of the school district to ensure that a comprehensive student management program is developed so all persons involved in the process are familiar with their responsibilities.

School District Responsibilities

- Establish the policies and procedures by which the program functions.

- Establish pupil regulations governing the behavior and safety of pupils at the bus stop and while boarding, riding, and disembarking from the school bus. The rules students are expected to follow should be limited in number and either posted in the bus and/or made available to all riders.
- Institute and administer an instructional program that teaches pupils proper conduct and safety procedures.
- Conduct a training program for school bus drivers to ensure that all policies, procedures, regulations and their enforcement are understood.
- Ensure that parents receive written copies of the bus rules and regulations. Clearly establish their roles and obligations with respect to pupil promptness, attitude and behavior.
- Initiate procedures to ensure open lines of communication and cooperation between school administrators, bus company officials, state agencies and bus drivers.
- Train drivers in skills that will enable them to maintain order, safety, and respect for the rights of others. These skills should include at least the following:
 - specific verbal intervention techniques used to maintain order and safety; and
 - communication skills that promote rapport, mutual respect, and encourage pupil compliance.

Ensure that administrators support and enforce disciplinary procedures, policies and reasonable actions by the driver.

Driver Responsibilities

- Drivers shall be familiar with and abide by all rules, policies and procedures affecting pupil transportation.
- Drivers should recognize the importance of establishing rapport with parents, their supervisor, and school administrators when working to ensure proper pupil conduct.
- Drivers should establish proper rapport with pupils
- Drivers should instruct pupils in proper behavior, consequences of improper behavior, general procedures and evacuation drills.
- Drivers should maintain order, safety, and secure the rights of others on the school bus. They should exercise good judgments and prudence in this pursuit, using appropriate verbal intervention. This includes, but is not limited to, the following:
 - Minimizing interior noise.
 - Controlling passenger movement.
 - Requiring an orderly entrance and exit.

- Eliminating movement or potential movement of objects.
- Requiring silence at railroad crossings.
- Prohibiting transportation of unauthorized materials.
- Drivers should handle minor infractions with school district approved, on-board consequences and discussions.
- Drivers, in instances of serious or recurring misconduct, should follow school district policy pertaining to the misconduct and submit written reports on appropriate forms to administrators or other persons designated to deal with discipline problems.
- Drivers should be aware that they represent the school system and/or the bus company, and should present a positive image in dress, language, and manner while on duty.
- Drivers should be familiar with the assigned routes and designated school bus stops.

Pupil Responsibilities

Proper pupil behavior is important. The distraction of the driver can contribute to accidents. Pupils and parents should be made aware of and abide by reasonable regulations to enhance safety. The consequences of unacceptable behavior should be clearly understood. The following will protect the pupil's rights and maintain order on the bus:

- Pupils must be aware that they are responsible for their actions and behavior.
- Pupils must know the rules and procedures and abide by them.
- Pupils must display respect for the rights and comfort of others.
- Pupils should realize that school bus transportation can be denied if they do not conduct themselves properly.
- Pupils should be aware that any driver distraction is potentially hazardous to their safety.
- Pupils should be aware of the dangers involved in and around loading and unloading zone, including the dangers of loose clothing, clothing accessories and other loose personal items.

Parent / Guardian Responsibilities

To promote school bus safety and the efforts set forth by the school district parents of all transportees should:

- understand and support district rules and policies, regulations and principles of school bus safety;

- assist children in understanding safety rules and encourage them to abide by them;
- recognize their responsibilities for the actions of their children;
- support safe riding practices and reasonable discipline efforts;
- teach children proper procedures for safely crossing the roadway before boarding and after leaving the bus (See Appendix E);
- support procedures for emergency evacuation as prescribed by states and school districts;
- respect the rights and privileges of others;
- communicate safety concerns to school administrators;
- monitor bus stops, if possible;
- support all efforts to improve school bus safety;

Parents/guardians should be aware of the dangers involved in and around loading and unloading zone, including the dangers of loose clothing, clothing accessories and other loose personal items.

Sample Policies

- Pupil shall follow directions of the driver the first time given.
- Pupil shall arrive at the bus stop before the bus arrives.
- Pupil shall wait in a safe place, clear of traffic and away from where the bus stops.
- Pupil shall wait in an orderly line and avoid horseplay.
- Pupil shall cross the road or street in front of the bus only after the bus has come to a complete stop and upon direction of the driver.
- Pupil shall go directly to an available or assigned seat when entering the bus.
- Pupil shall remain seated and keep aisles and exits clear.
- Pupil shall exhibit classroom conduct at all times.
- Pupil shall refrain from throwing or passing objects on, from or into buses.
- Pupil is permitted to carry only objects that can be held on his/her lap.
- Pupil shall refrain from the use of profane language, obscene gestures, tobacco, alcohol, drugs or any other controlled substance on the bus.
- Pupil shall refrain from eating and drinking on the bus.
- Pupil shall not carry hazardous materials, nuisance items and animals onto the bus.
- Pupil shall respect the rights and safety of others.
- Pupil shall refrain from leaving or boarding the bus at locations other than the assigned stops at home or school.
- Pupil shall refrain from extending head, arms or objects out of the bus windows.
- Pupil shall refrain from hitching rides via the rear bumper or other parts of the bus.

Use Of Video Monitoring Systems

School systems should promulgate, communicate and enforce policies and procedures to be followed when using on-board video monitoring systems. The video camera on a school bus should be used only as an aid to monitor student and driver behavior. It should not replace the discipline policy, the authority of the driver, or the responsibility of the school officials. The basic safe riding rules must prevail and the consequences of misconduct must be carried out.

All students and drivers shall be notified that they are subject to being videotaped on the school bus at any time. Notification to parents of all students shall be made by the school district. Prior to actual taping, parents and students shall be advised that student conduct prohibited by state and school district student disciplinary code will result in appropriate consequences as defined in policy. The actual taping shall be audio and video.

Ongoing notification regarding videotaping must occur, addressing the continued need for personal awareness of safety issues. This communication is particularly important to warn against a false sense of security, especially when cameras are moved between buses. Newsletters, student handouts, and notices posted in the bus should be considered.

If video cameras are to be used for monitoring drivers, the drivers must be notified as to the extent of their use and for what purpose they will be used.

Cameras should be scheduled on a rotation basis so as not to select only certain buses. Based on the number of incidents of misconduct or the seriousness of these reports, video monitoring of a bus route may be done more frequently. The transportation supervisor may decide if more frequent monitoring is needed. Such additional monitoring is meant to supplement the written disciplinary reports by the bus driver, not take the place of reports.

After videotaping has been conducted, the tapes are to be stored at a secure location for a period of time designated by the local school district, unless a specific tape is being used in an ongoing action. The transportation supervisor or designee shall periodically review videotapes randomly selected to ensure proper pupil conduct. If no incidents are reported within a period defined by local policy, the tapes will be recycled. If incidents are reported, or if incidents are viewed during random selection, the videotapes are to be kept until final resolution and time for any appeals.

Tapes must be dated and have the bus number and driver's name in order to ensure proper identification. A log shall be maintained on the use of the video camera.

When action is taken as a result of information obtained from the videotape, the driver, supervisor, school administrator, student, and parents or guardians will be contacted. A meeting of the aforementioned parties may be necessary to achieve a resolution of the problem. The videotape may be used as evidence in that meeting. All requests for review shall be made in writing. Each district must designate, by policy, persons allowed to review the tapes.

Emergency Procedures

Also see Emergency and Rescue Procedures: A Guideline Manual For School Bus Involvement, APPENDIX C. This manual is a reference for each school system in developing its own specific emergency plan. Copies of the school system's plan should be carried in each bus. This plan should be developed in cooperation with the personnel in those agencies that will render service during emergencies. The school transportation director, school administrators, teachers, drivers, maintenance and service personnel, pupils, and others should be instructed in the procedures to be followed in the event of:

- Accident:
 - how to evacuate and control pupils;
 - how to evaluate the need for medical assistance;
 - how to get help from the police, fire department and garage;
 - how to collect and record data essential to the preparation of the required accident reports (An operational plan to provide two-way communication with parents and/or guardians is imperative.) and;
 - how to prevent further accidents.
- Sudden disability of driver:
 - Procedures for handling situations resulting in the fatal injury or disability of the bus driver should be established and communicated to appropriate persons. A list including the bus operator, emergency telephone numbers, list of students assigned to the bus, and the special needs of students should be on the bus.
- Bus breakdown. The emergency plan should cover procedures for:
 - securing the bus;
 - controlling the passengers;
 - diagnosing the cause(s) of the bus breakdowns;
 - notifying school officials;
 - recovering the disabled school bus, and;
 - providing replacement transportation of passengers.
- Inclement weather conditions: The emergency plan should provide procedures for determining:
 - when schools are to be closed;
 - who is to make such decisions;

- how decisions are to be relayed to parents, pupils, school officials and staff (including teachers and cafeteria manager), drivers, contractors, maintenance and service personnel, the news media and others, and;
- how to react to such natural phenomena as floods, hurricanes, tornadoes, earthquakes and tsunami, etc.
- Other types of emergency situations. The emergency plan should include communication norms, data collection, stress reduction and cover such conditions and events as:
 - defense/disaster drills;
 - strikes by school staff, teachers, drivers or contractors;
 - road or bridge washouts and landslides that might block school bus routes;
 - bus hijacking;
 - weapons on board or at bus stops, and;
 - unauthorized boarding.

Communication

It is necessary to keep those in charge of the system, bus companies, parents, and pupils informed of all operational procedures. The school district must ensure that the channels of communication are set up so that information can be disseminated quickly and effectively.

The school district must ensure that inquiries, requests, suggestions, and recommendations are given prompt and appropriate attention and are handled efficiently. Some of the ways and purposes that information can be disseminated are:

- **Bulletins:** To explain the school district's transportation policy to school administrators, teachers, bus companies, drivers, parents, pupils and, others associated with the operation; and to clarify new laws and safety policies so that everyone knows what is expected of them.
- **Meetings:** To provide an opportunity for those associated with the school transportation program to share their views and to help build broad community support for safe transportation.
- **Public Press:** To inform parents of policy, route, stop and schedule changes, the safety record of the operation, and positive driver achievement records.
- **Conferences:** To discuss solutions to disciplinary problems with drivers, disruptive pupils and their parents; to review policy decisions affecting drivers, contractors, pupils and school administrators.

- Letters: To inform parents of all school and state regulations, new routes, etc.; reply to more urgent inquiries regarding pupil transportation safety, policy and procedures.
- Telephone Calls: To provide quick contact between bus drivers and the school, or between parents and the school in the event of urgent or emergency situations.
- Radio and Television: To inform the public of new policies, laws, and procedures that the schools will follow in case of severe weather conditions or other natural phenomena.
- Formal Hearings: To be used, as required, for student suspensions from transportation, route challenges, serious complaints against driver, etc.

Appendix A : An Employer's Guide to Drug Testing in Montana

This manual provides informal guidance to help Montana employers develop and implement alcohol and controlled substance testing programs. The manual includes a copy of the 1997 "Workforce Drug and Alcohol Testing Act" enacted by the Montana State Legislature, summaries of applicable state and federal codes where appropriate, and a list of resources employers can use for additional help in establishing their alcohol and controlled substance testing programs.

The information in this manual is designed to help educate employers and is not offered as legal advice or opinion. Employers or employees seeking a determination of legal rights or responsibilities should seek the counsel of an attorney or a designated official of an applicable regulating agency.

Much of the information in this guidebook is based on existing state and federal laws. Every effort has been made to ensure this information is consistent with the original laws and rules; however, differences may exist due to interpretation and revision. The United States Codes, Montana Codes, and the Federal Register are the correct and legal documents governing the information presented in this guide. These publications are the only documents used for official references and citations. Neither the United States Government nor the State of Montana assumes any liability for the contents or use of this document.

This guide was originally produced in February 1996 by James E. Burgess of Professional Resources, Inc. The guide was updated in October 1997 by Mike Muscarelli and John I. C. Ramirez

Problem: Drugs and Alcohol in the Workplace

Alcohol and drug abuse are prevalent in the American workplace. Seventy percent of current illicit drug users in the United States are employed- more than 10 million employees. Two thirds of all adults in the U.S. use alcohol, one out of three occasionally abuse alcohol, and 17 million U.S. adults are alcoholic. The use of drugs and misuse of alcohol in the workplace has a negative impact on lives, work, productivity, safety, and costs.

The cost to American industry and government in the number of lives lost, injuries, property damage, and financial loss from the misuse of drugs and alcohol is enormous- an estimated \$60 billion a year. Nationwide, alcohol misuse claims at least 100,000 lives annually, 25 times as many as all illegal drugs combined.

Employee drug and alcohol abuse is a leading cause of accidents in the workplace. An estimated 20 to 25 percent of all on-the-job accidents involve an employee impaired by alcohol or drugs. The National Safety Council says on-the-job accidents are four times more costly than personal accidents, with an estimated average cost to employers of

\$168,000 for a fatal accident and \$6,900 for a non-fatal accident.

Response: Laws and Rules

Federal Law

The Omnibus Transportation Employee Testing Act of 1991 The goal of the Omnibus Act is to reduce substance abuse in the workplace by requiring alcohol and drug testing of safety-sensitive employees in the aviation, motor carrier, railroad, and mass transit industries.

Federal Rules: DOT Drug and Alcohol Testing Regulations In February 1994, the U.S. Department of Transportation (DOT) established rules to help prevent accidents and injuries resulting from the misuse of alcohol and controlled substances by employees who perform safety-sensitive functions in their industries. The rules expand and supplement existing drug testing rules published in November 1988 that mandated drug testing of aviation, interstate motor carrier, railroad, pipeline, and commercial marine employees. In general, federal rules require alcohol and drug testing of employees who are required to have a commercial driver's license.

Montana Law

Montana statute does not mandate drug and alcohol testing. Montana law does require all employers using drug and alcohol testing to adopt procedures developed by the DOT (49 Code of Federal Regulations, part 40). Montana law also restricts testing to ensure only employees involved in certain hazardous, security, safety, or fiduciary positions are subject to testing.

Results: Requirements

In general, federal DOT regulations require covered interstate transportation employers and/or employers of those required to have a commercial drivers license (CDL) to:

- Develop and enforce a comprehensive substance abuse policy.

- Develop and implement a drug and alcohol testing program, either as an entity or part of a consortium.
- Educate and train supervisors.
- Provide drug and alcohol information to all employees subject to testing.
- Designate a medical review officer.
- Identify collection sites.
- Identify a substance abuse professional.
- Test all covered employees for controlled substance and alcohol.
- Comply with record keeping and reporting requirements.

Federal Testing Requirements

The DOT drug and alcohol testing procedures rules (49 CFR, Part 40) establish the exact procedures for drug and alcohol testing. These rules detail the procedures concerning accuracy, reliability and confidentiality of test results. The procedures include training and proficiency requirements for the breath alcohol technician (BAT), quality assurance plans for the breath testing devices, and protection of employee test records.

Employer Options in Addition to Testing

Alcohol and controlled substance testing is only one of many choices available to help organizations develop safe, healthy, and productive workplaces. Other alternatives may include:

- Developing employee safety teams
- Training supervisors to recognize signs and symptoms of drug or alcohol impairment
- Developing an employee assistance program
- Improving performance appraisal systems
- Assessing safety problems
- Educating employees about problems and risks associated with drug and alcohol misuse
- Employers who are not directly required by DOT regulations to test should carefully consider all the costs and consequences of an alcohol and controlled substance testing program. For many employers, testing may not be necessary or appropriate.

Montana Employers Regulated by a DOT Agency

Depending on the situation, there can be contradictions between the requirements of the Federal Employers and employees regulated, in whole or in part, by a DOT agency must comply with DOT rules. Federal drug and alcohol testing rules preempt Montana laws, rules, regulations, or orders to the extent that:

- Compliance with both the Montana requirement and federal rules is not possible; or
- Compliance with the Montana requirement is an obstacle to the accomplishment and execution of any federal requirement.

This does not preempt Montana criminal laws that impose sanctions for reckless conduct leading to actual loss of life, injury, or damage to property, whether the provisions apply specifically to transportation employees, employers, or the general public

Montana Employers Not Regulated by a DOT Agency

Employers planning to establish a drug and alcohol testing program but who are not regulated, in whole or in part, by a DOT agency must comply with Montana law.

For more information on federal DOT rules, please contact the Montana Office of the Federal Highway Administration at (406) 441-1222.

The Montana Workforce Drug and Alcohol Testing Act

Be it enacted by the Legislature of the State of Montana:

39-2-205. Short title. {Sections 39-2-205 through 39-2-211} may be cited as the "Workforce Drug and Alcohol Testing Act."

39-2-206. Definitions. As used in {sections 39-2-205 through 39-2-211}, the following definitions apply:

- (1) "Alcohol" means an intoxicating agent in alcoholic beverages, ethyl alcohol, also called ethanol, or the hydrated oxide of ethyl.
- (2) "Alcohol concentration" means the alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath, as indicated by an evidential breath test.
- (3) "Controlled substance" means a dangerous drug, as defined in 49 CFR, part 40, except a drug used pursuant to a valid prescription or as authorized by law.
- (4) "Employee" means an individual engaged in the performance, supervision, or management of work in a hazardous work environment, security position, position affecting public safety, or fiduciary position for an employer and does not include an independent contractor. The term includes an elected official.
- (5) "Employer" means a person or entity that has one or more employees and that is located in or doing business in Montana.
- (6) "Hazardous work environment" includes but is not limited to positions:
 - (a) for which controlled substance and alcohol testing is mandated by federal law, such as aviation, commercial motor carrier, railroad, pipeline, and commercial marine employees;
 - (b) that involve the operation of or work in proximity to construction equipment, industrial machinery, or mining activities; or
 - (c) that involve handling or proximity to flammable materials, explosives, toxic chemicals, or similar substances.
- (7) "Medical review officer" means a licensed physician trained in the field of substance abuse.
- (8) "Prospective employee" means an individual who has made a written or oral application to an employer to become an employee.
- (9) "Qualified testing program" means a program to test for the presence of controlled substances and alcohol that meets the criteria set forth in {sections 39-2-207 and 39-2-208}.

(10) "Sample" means a urine specimen to determine the presence of a controlled substance or a breath alcohol test to determine the presence of alcohol.

39-2-207. Qualified testing program. A qualified testing program must comply with the following criteria:

(1) Testing must be conducted according to the terms of written policies and procedures that must be adopted by the employer and must be available for review by all employees 60 days before the terms are implemented or changed. Controlled substance and alcohol testing procedures must conform to 49 CFR, part 40. At a minimum, the policies and procedures must require:

(a) a description of the applicable legal sanctions under federal, state, and local law for the unlawful manufacture, distribution, possession, or use of a controlled substance;

(b) the employer's program for regularly educating or providing information to employees on the health and workplace safety risks associated with the use of controlled substances and alcohol;

(c) the employer's standards of conduct that regulate the use of controlled substances and alcohol by employees;

(d) a description of available employee assistance programs, including drug and alcohol counseling, treatment, or rehabilitation programs that are available to employees;

(e) a description of the sanctions that the employer may impose on an employee if the employee is found to have violated the standards of conduct referred to in subsection (1)(c) or if the employee is found to test positive for the presence of a controlled substance or alcohol;

(f) identification of the types of controlled substance and alcohol tests to be used from the types of tests listed in {section 39-2-208};

(g) a list of controlled substances for which the employer intends to test and a stated alcohol concentration level above which a tested employee must be sanctioned;

(h) a description of the employer's hiring policy with respect to prospective employees who test positive;

(i) a detailed description of the procedures that will be followed to conduct the testing program, including the resolution of a dispute concerning test results;

(j) a provision that all information, interviews, reports, statements, memoranda, and test results are confidential communications that may not be disclosed to anyone except:

(i) the tested employee;

(ii) the designated representative of the employer; or

(iii) in connection with any legal or administrative claim arising out of the employer's

implementation of {sections 39-2-205 through 39-2-211} or in response to inquiries relating to a workplace accident involving death, physical injury, or property damage in excess of \$1,500, when there is reason to believe that the tested employee may have caused or contributed to the accident; and

(k) a provision that information obtained through testing that is unrelated to the use of a controlled substance or alcohol must be held in strict confidentiality by the medical review officer and may not be released to the employer.

(2) In addition to imposing appropriate sanctions on an employee for violation of the employer's standards of conduct, an employer may require an employee who tests positive on a test for controlled substances of alcohol to participate in an appropriate drug or alcohol counseling, treatment, or rehabilitative program as a condition of continued employment. An employer may require the employee to submit to periodic follow-up testing as a condition of the counseling, treatment, or rehabilitation program.

(3) Testing must be at the employer's expense, and all employees must be compensated at the employee's regular rate, including benefits, for time attributable to the testing program.

(4) The collection, transport, and confirmation testing of urine samples must be performed in accordance with 49 CFR, part 40.

(5) Before an employer may take any action based on a positive test result, the employer shall have the results reviewed and certified by a medical review officer who is trained in the field of substance abuse. An employee or prospective employee must be given the opportunity to provide notification to the medical review officer of any medical information that is relevant to interpreting test results, including information concerning currently or recently used prescription or nonprescription drugs.

(6) Breath alcohol tests must be administered by a certified breath alcohol technician and may only be conducted using testing equipment that appears on the list of conforming products published in the Federal Register.

(7) A breath alcohol test result must indicate an alcohol concentration of greater than 0.04 for a person to be considered as having alcohol in the person's body.

39-2-208. Qualified testing program- allowable types- procedures. Each of the following activities is permissible in the implementation of a qualified testing program:

(1) An employer may test any prospective employee as a condition of hire.

(2) An employer may use random testing if the employer's controlled substance and alcohol policy includes one or both of the following procedures:

(a) An employer or an employer's representative may establish a date when all salaried and wage-earning employees will be required to undergo controlled substance or alcohol tests, or both.

(b) An employer may manage or contract with a third party to establish and administer a

random testing process that must include:

- (i) an established calendar period for testing;
- (ii) an established testing rate within the calendar period;
- (iii) a random selection process that will determine who will be tested on any given date during the calendar period for testing;
- (iv) all supervisory and managerial employees in the random selection and testing process; and
- (v) a procedure that requires the employer to obtain a signed statement from each employee that confirms that the employee has received a written description of the random selection process and that requires the employer to maintain the statement in the employee's personnel file. The selection of employees in a random testing procedure must be made by a scientifically valid method, such as a random number table or a computer-based random number generator table.

(3) An employer may require an employee to submit to follow-up tests if the employee has had a verified positive test for a controlled substance or for alcohol. The follow-up tests must be described in the employer's controlled substance and alcohol policy and may be conducted for up to 1 year from the time that the employer first requires a follow-up test.

(4) An employer may require an employee to be tested for controlled substances or alcohol if the employer has reason to suspect that an employee's faculties are impaired on the job as a result of the use of a controlled substance or alcohol consumption. An employer shall comply with the supervisory training requirement in 49 CFR, part 382.603, whenever the employer requires a test on the basis of reasonable suspicion.

(5) An employer may require an employee to be tested for controlled substances or alcohol if the employer has reason to believe that the employee's act or failure to act is a direct or proximate cause of a work-related accident that has caused death or personal injury or property damage in excess of \$1,500.

39-2-209. Employee's right of rebuttal. The employer shall provide an employee who has been tested under any qualified testing program described in {section 39-2-208} with a copy of the test report. The employer is also required to obtain, at the employee's request, an additional test of the urine split sample by an independent laboratory selected by the person tested. The employer shall pay for the additional tests if the additional test results are negative, and the employee shall pay for the additional tests if the additional tests are positive. The employee must be provided the opportunity to rebut or explain the results of any test.

39-2-210. Limitation on adverse action.

No adverse action, including follow-up testing, may be taken by the employer if the employee presents a reasonable explanation or medical opinion indicating that the original test results were not caused by illegal use of controlled substances or by alcohol consumption. If the employee presents a reasonable explanation or medical opinion, the test results must be removed from the employee's record and destroyed.

39-2-211. Confidentiality of results.

(1) Except as provided in subsection (2) and except for information that is required by law to be reported to a state or federal licensing authority, all information, interviews, reports, statements, memoranda, or test results received by an employer through a qualified testing program are confidential communication and may not be used or received in evidence, obtained in discovery, or disclosed in any public or private proceeding.

(2) Material that is confidential under subsection (1) may be used in a proceeding related to:

(a) legal action arising out of an employer's implementation of {sections 39-2-205 through 39-2-211}; or

(b) inquiries relating to a workplace accident involving death, physical injury, or property damage in excess of \$1,500 when there is reason to believe that the tested employee may have caused or contributed to the accident.

Testing Requirements

The Montana State Legislature in 1997 adopted the Workforce Drug and Alcohol Testing Act, which was signed into law by Governor Marc Racicot. The law establishes criteria for drug and alcohol testing of employees and prospective employees. The law also provides for confidentiality of test results except in certain circumstances.

Employee Notice

Alcohol or controlled substance testing must be conducted according to the terms of written policies and procedures that must be adopted by the employer. The written policies and procedures must be available for review by all employees 60 days before the terms are implemented or changed. Controlled substance and alcohol testing procedures must conform to 49 CFR, part 40.

Under federal requirements, employers must inform employees being tested for alcohol or controlled substance abuse that the test is required under DOT regulations.

Who can be Tested?

Montana law allows drug and alcohol testing of employees who have safety, security, or fiduciary duties, or who work in "hazardous work environments," which includes, but is not limited to positions for which controlled substance and alcohol testing is mandated by federal law, such as:

- aviation
- commercial motor carrier
- railroad
- pipeline
- commercial marine employees

that involve the operation of or work in proximity to:

- construction equipment
- industrial machinery
- mining activities

that involve handling or proximity to:

- flammable materials
- explosives
- toxic chemicals, or
- similar substances

No employer should begin a controlled substance and alcohol testing program without a thorough legal review of applicable Montana statutes. Please consult your attorney.

Commercial Motor Vehicle Employers and Drivers

The guidelines below apply to commercial drivers. The guidelines were developed in accordance with rules and regulations established by the Federal Highway Administration (FHWA). All drivers required to have a commercial drivers license (CDL) are covered by federal controlled substance and alcohol testing rules. This includes all interstate and intrastate truck and motor coach operations.

Examples of drivers and employers subject to these rules are:

- Commercial truck or bus operators
- Self-employed drivers
- Federal, state, tribal and local governments
- Church and civic organizations
- For-hire motor carriers
- School bus drivers
- Farmers and custom harvesters
- Commercial Transportation Employers and Operators
- Employees who perform safety-sensitive functions in commercial transportation (aviation, rail, and transit industries) are covered by federal controlled substance and alcohol testing rules.

Examples of employers and employees subject to these rules are:

- Pilots and airlines
- Pipeline employees
- Commercial mariners
- Railroad employees
- Air traffic controllers

These guidelines generally apply to persons performing safety-sensitive functions in commercial transportation operations. However, the Federal Aviation Administration (FAA), Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and the Research and Special Programs Administration (RSPA) have each established rules and regulations specific to their covered industries. Employers regulated by any of these federal agencies should review their specific rules.

Testing- Who Pays?

Under Montana law, initial alcohol and controlled substance testing must be at the employer's expense. All employees must be paid at the employee's regular rate, including benefits, for time attributable to the testing program.

Tests

Testing for alcohol and controlled substance abuse must be conducted according to the terms of written policies and procedures adopted by the employer. Criteria for establishing a qualified testing program under Montana state law can be found in the "Montana Workforce Drug and Alcohol Testing Act" section of this manual, pages 4-8.

Alcohol Testing

Alcohol testing is done using evidential breath testing (EBT) and non-evidential breath testing devices approved by the National Highway Transportation Safety Administration (NHTSA). Anyone who conducts alcohol testing must be trained to operate the EBT and proficient in breath testing procedures. Individuals who successfully complete training are referred to as breath alcohol technicians (BAT). BAT training is available through DOT.

Drug Testing

Drug testing is done solely by urinalysis. All urine specimens are analyzed for the following controlled substances:

- Marijuana (THC metabolite)

- Cocaine

- Amphetamines

- Opiates (including heroin)

- Phencyclidine (PCP)

All controlled substance test results are reviewed and interpreted by a medical review officer (MRO) before they are reported to the employer.

Pre-employment Tests

An employer may test any prospective employee in a qualified position as a condition of hire. Pre-employment tests for controlled substances are administered before applicants are hired or after an offer to hire, but before performing safety-sensitive functions for the first time.

Testing of Independent Contractors

Montana law does not apply to independent contractors. Under federal law, an employer who uses an independent contractor to perform safety-sensitive functions more than once a year must verify the driver participated in a controlled substances testing program once every six months.

Post-Accident Tests

Under federal law, post-accident tests for alcohol and controlled substances are conducted after an accident involving a commercial motor vehicle on surviving drivers who:
were performing safety-sensitive functions during a fatal accident; or
received a citation under state or local law for a moving traffic violation arising from the accident. Under federal law, tests must be conducted as soon as practical after the accident but within two hours following the accident for alcohol and 32 hours after the accident for controlled substances.

Under Montana law, an employer may require an employee to be tested for controlled substances or alcohol if the employer has reason to believe that the employee's act or failure to act is a direct or proximate cause of a work-related accident that has caused death or personal injury or property damage in excess of \$1,500.

Reasonable Suspicion Tests

Montana law says employers may require an employee subject to state statute to submit to a controlled substance or alcohol test when there is "reason to suspect" an employee's faculties are impaired on the job as a result of the use of a controlled substance or alcohol consumption.

Random Tests

Random tests are intended to deter employees from alcohol misuse and drug abuse.

Generally, those subject to testing are randomly selected, using scientifically valid methods, from a "pool" of covered employees, which must include all supervisory and managerial employees in covered positions. In general under Montana law, the random testing process must also include:

an established calendar period for testing;

an established testing rate within the calendar period;

a procedure which requires the employer to obtain a signed statement from each employee that confirms that the employee has received a written description of the random selection process. The employer is required to maintain the statement in the employee's personnel file.

Consortia Random Testing Pools

Employers may combine their covered employees with covered employees from other organizations into one random testing pool.

Return-To-Duty Tests

Return-to-duty tests are conducted when a person who has violated the prohibited alcohol conduct or controlled substance standards returns to performing covered duties.

Follow-up Tests

An employer may require an employee to submit to follow-up tests if the employee has had a verified positive test for a controlled substance or for alcohol. Under Montana law, follow-up tests may be conducted up to one year after the employer first requires a follow-up test.

Notification of Test Results

Employers must notify tested employees (applicants) of the results of a pre-employment controlled substance test within 60 days of being notified of their rejection (or acceptance) for employment (if the employee requests such results).

Record Keeping

General Requirements Employers are required to keep detailed records of their alcohol misuse and controlled substance use prevention programs. In general, all records relating to the following categories will need to be maintained:

- The collection process
- Each employee's test results
- Violations
- Evaluations
- Education and training
- Drug testing

Confidentiality

Controlled substance and alcohol testing results and records must be maintained under strict confidentiality and may not be disclosed to anyone except:

- the tested employee;
- the designated representative of the employer; or
- in connection with any legal or administrative claim arising out of the employer's implementation of or in response to inquiries relating to a workplace accident involving death, physical injury, or property damage in excess of \$1,500, when there is reason to believe the tested employee may have caused or contributed to the accident.

Employee's Right of Rebuttal

An employee tested under any qualified testing program must be provided by the employer with a copy of the test report. The employee must be given a chance to rebut or explain the results of any test. According to Montana statute, no adverse action, including follow-up testing, may be taken by the employer if the employee presents a "reasonable explanation or medical opinion indicating that the original test results were not caused by illegal use of controlled substances or by alcohol consumption."

The employer is also required to obtain, at the employee's request, an additional test of the urine split sample by an independent laboratory selected by the person tested. The employer pays for the additional tests if the additional test results are negative. The employee pays for the additional tests if the additional test results are positive.

Liability Concerns

Alcohol and controlled substance testing programs should be carefully developed and monitored to ensure the employee and employer are protected. Before starting any alcohol or controlled substance abuse testing program, consult your attorney for information concerning employee privacy rights, accommodations for individuals with drug and alcohol problems, the Americans With Disabilities Act, the Montana Human Rights Act, and the Family and Medical Leave Act.

Glossary

Alcohol - The intoxicating agent in beverage alcohol, ethyl alcohol or other low molecular weight alcohols including methyl or isopropyl alcohol.

Alcohol Concentration - The alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath as indicated by an evidential breath test.

Alcohol Use - The consumption of any beverage, mixture or preparation, including any medication, containing alcohol.

Americans with Disabilities Act (ADA) - (Pub. L. 101-36) Title I of the ADA covers employers who have fifteen or more employees for more than 20 calendar weeks in a year. Covered employers may not discriminate against a qualified individual with a disability with respect to applications, hiring, advancement, discharge, compensation, or other terms, conditions or privileges of employment.

Breath Alcohol Technician (BAT) - A person who instructs and assists individuals in the alcohol testing process and operates an EBT.

Chain of custody - Procedures to account for the integrity of each urine or blood specimen by tracking its handling and storage from point of specimen collection to final disposition of the specimen. With respect to drug testing, these procedures shall require that an appropriate drug testing custody form (see CFR 49 part 40.23(a)) be used from time of

collection to receipt by the laboratory and that upon receipt by the laboratory an appropriate laboratory chain of custody forms account for the sample within the laboratory. *Collection site* - A place designated by the employer where individuals present themselves for the purpose of providing a specimen of their urine to be analyzed for the presence of drugs.

Commerce - 1. Any trade, traffic or transportation within the jurisdiction of the United States between a place in a State and a place outside of such State, including a place outside of the United States; and, 2. Trade, traffic, and transportation in the United States which affects any trade, traffic, and transportation described in paragraph (1) of this definition.

Commercial motor vehicle - A motor vehicle or combination of motor vehicles used in commerce to transport passengers or property if the motor vehicle:

1. Has a gross combination weight rating of 26,001 or more pounds inclusive of a towed unit with a gross vehicle weight rating of more than 10,000 pounds; or 2. Has a gross vehicle weight rating of 26,001 or more pounds; or 3. Is designed to transport 16 or more passengers, including the driver; or 4. Is of any size and is used in the transportation of materials found to be hazardous for the purposes of the Hazardous Materials Transportation Act and which require the motor vehicle to be placarded under the Hazardous Materials Regulations (49 CFR part 172, subpart F).

Confirmation test - For alcohol, a second test, following a screening test with a result of 0.02 or greater, that provides an exact measure of alcohol concentration. For controlled substances testing, a second analytical procedure to identify the presence of a specific drug or metabolite which is independent of the screen test and which uses a different technique and chemical principle from that of the screen test in order to ensure reliability and accuracy.

Consortium - In context of this guide, a group or association of employers or contractors, that provides alcohol or controlled substances testing and acts on behalf of the employers.

Controlled Substance - For the purposes of this guide, a controlled substance is any drug or other substance that impairs the ability or alertness of an employee performing a safety-sensitive function, regardless of whether the substance is legal or illegal. Legally, a controlled substance is a drug or other substance, or immediate precursor, listed in 21 USC 812 (Controlled Substance Act). The term does not include distilled spirits, wine, malt beverages, or tobacco.

DOT agency - An agency of the United States Department of Transportation administering regulations related to drug or alcohol testing, including the United States Coast Guard (for drug testing purposes only), the Federal Aviation Administration, the Federal Railroad Administration, the Federal Highway Administration, the Federal Transit Administration, the Research and Special Programs Administration, and the Office of the Secretary.

DPHHS - The Department of Health and Human Services or any designee of the Secretary, Department of Health and Human Services.

Driver - Any person who operates a commercial motor vehicle. This includes, but is not limited to: full time, regularly employed drivers; casual, intermittent or occasional drivers; leased drivers and independent, owner-operator contractors who are either directly employed by or under lease to an employer or who operate a commercial motor vehicle at the direction of or with the consent of an employer. For the purposes of pre-employment/pre-duty testing only, the term driver includes a person applying to an employer to drive a commercial motor vehicle.

Employee - An individual designated in law or regulation as subject to drug testing and/or alcohol testing. As used in this guide, "employee" includes an applicant for employment.

Employer - Any entity employing one or more employees that is subject to regulations requiring compliance with controlled substance and alcohol testing (including federal, state, tribal, and local governments). The term employer includes an employer's agents, officers, representatives, consortium, or joint enterprise comprised of two or more employing entities.

Evidential Breath Testing Device (EBT) - An EBT is approved by the National Highway Traffic .Safety Administration (NHTSA) for evidential testing of breath and placed on NHTSA's "Conforming Products List of Evidential Breath Measurement Devices" (CPL), and identified on the CPL as conforming with the model specifications available from the NHTSA, Office of Alcohol and State Programs. As of October 1, 1997, EBTs are considered evidentiary.

Family and Medical Leave Act of 1993 (FMLA) - provides certain protections for employees with "serious health conditions." The statute's protections apply only to employers with 50 or more employees and employees who work for such an employer at least 1250 hours during a 12-month period.

Intrastate - commerce or trade that is begun, carried on, and completed wholly in a state.

Medical Review Officer (MRO) - A licensed physician (medical doctor or doctor of osteopathy) responsible for receiving laboratory results generated by an employer's drug testing program who has knowledge of substance abuse disorders and has appropriate medical training to interpret and evaluate an individual's confirmed positive test result together with his or her medical history and any other relevant biomedical information.

Performing (a safety-sensitive function) - An employee is considered to be performing a safety-sensitive function during any period in which he or she is actually performing, ready to perform, or immediately available to perform any safety-sensitive functions.

Refuse to submit (to an alcohol or controlled substances test) - An employee:

1. Fails to provide adequate breath for testing without a valid medical explanation after he or she has received notice of the requirement for breath testing in accordance with the provisions of this part; or,
2. Fails to provide adequate urine for controlled substances testing without a valid medical explanation after he or she has received notice of the requirement for urine testing in accordance with the provisions of this part, or
3. Engages in conduct that clearly obstructs the testing process.

Safety-sensitive function - Any on-duty work task, activity, or duty that has potential of causing significant physical or mental injury to people or damage to property. The focus is on function rather than job description. A person's job may require several different functions, some of which are not safety-sensitive. For commercial drivers, safety sensitive functions are defined as the following on-duty activities (see CFR 49 part 395.2):

1. All time at a carrier or shipper plant, terminal, facility, or other property, or on any public property, waiting to be dispatched, unless the driver has been relieved from duty by the motor carrier.
2. All time inspecting equipment as required by CFR 49 part 392.7 and 392.8, or otherwise inspecting, servicing, or conditioning any commercial motor vehicle at any time.
3. All time spent at the driving controls of a commercial motor vehicle. Also known as driving time.

4. All time, other than driving time, in or upon any commercial motor vehicle except time spent resting in a sleeper berth.

5. All time loading or unloading a vehicle, supervising, or assisting in the loading or unloading, or other related activities.

6. All the time repairing, obtaining assistance, or remaining in attendance upon a commercial motor vehicle.

Screening test (also known as initial test) - In alcohol testing, an analytical procedure to determine whether an employee may have a prohibited concentration of alcohol in his or her system. In controlled substance testing, an immunoassay screen to eliminate "negative" urine specimens from further consideration.

Substance abuse professional - A licensed physician (medical doctor or doctor of osteopathy), or a licensed or certified psychologist, social worker, employee assistance professional, or addiction counselor (certified by the National Association of Alcoholism and Drug Abuse Counselors Certification Commission) with knowledge of and clinical experience in the diagnosis and treatment of alcohol and controlled substances-related disorders.

Resources

Forms and Training Materials

The Federal Government Printing Office (GPO) has DOT forms and manuals available to comply with 49 CFR Parts 40 and 382.

The order telephone number for GPO is:

Voice 202-512-1800

Fax 202-512-2250

The NHTSA Breath Alcohol Technician Training Course required by 49 CFR Part 382 and 49 CFR 40.51(a)(2) is available through the Federal Government Printing Office.

Description Order #

Breath Alcohol Technician (BAT) Training Course

Teacher Manual 050 - 000 - 00551 - 8.

Student Workbook 050 - 000 - 00550 - 0.

DOT Screening Test Technician (STT) Training Course 050 - 000 - 00559 - 3.

DOT Breath Alcohol Testing Form 050 - 000 - 00556 - 9.

Federal Drug Testing Custody and Control Form 050 - 000 - 00558 - 5.

Technical Assistance

Person-to person technical assistance may be obtained from:

Federal Highways Administration safety specialists in:

Montana 406-441-1222

Montana Department of Transportation Safety Specialists:

Organizational Development Bureau, Helena 406-444-6054

Montana Highway Patrol

Motor Vehicle Inspection Bureau, Helena 406-444-3300 Fax On Demand

The Office of the Secretary of Transportation offers a "Fax-On-Demand" service.

This free service allows access to various alcohol and drug testing information items.

Using a touch-tone telephone, dial 1-800-225-3784
FHWA Online Services
Federal Highway Administration Electronic Bulletin Board System (FEBBS)
FEBBS 800 no.: 800-337-3492
14.4K Baud: 202-366-3764
2400-9600 Baud: 202-366-3175
FEBBS telnet: febbs.dot.gov
FEBBS HELP - Call FHWA Help Desk 202-366-1120

Drug and Alcohol Abuse Information

Addictive and Mental Disorders Division, Montana Department of Public Health and Human Services

Help with Montana community resources and educational materials

Helena 406-444-2827

Toll-free number: 800-457-2327

National Clearinghouse for Alcohol and Drug Information

The National Clearinghouse for Alcohol and Drug Information (NCADI) serves as the information service of the Center for Substance Abuse Prevention of the U.S. Department of Health & Human Services. NCADI is the world's largest resource for current information and materials about alcohol and other drugs. NCADI provides current information regarding alcohol, tobacco, and other drugs; prevention; demographics; research; and/or resource referrals. Almost all publications are available without charge to the public. NCADI can be reached toll-free at 1-800-729-6686. Telecommunications Device for the Deaf (TDD) number is 1-800-487-4889.

NCADI Online Services The NCADI BBS (PREVline) Modem: 301-770-0850

The NCADI BBS (PREVline) Telnet: ncadi.health.org

The NCADI World Wide Web server: <http://www.health.org/>

The NCADI Gopher: <gopher.health.org>

The NCADI FTP site: <ftp.health.org>

Send E-mail to NCADI: info@prevline.health.org

Laboratories

Over 90 federally-certified drug testing laboratories are located throughout the United States. The

current list of federally-approved laboratories is published monthly in the Federal Register.

Information on regional laboratories is available from the state and federal sources listed above.

Related Resources

Drug Abuse in the Workplace: Employer's Guide for Prevention, Washington, D.C., U.S. Chamber of

Commerce (1988).

National Substance Abuse service: 1-800 435-7327.

ADA Regional Disability and Business Technical Assistance Center Hotline, 1-800-949-4232

(voice/TTY).

U.S. Equal Employment Opportunity Commission, 1801 L Street NW, Washington, D.C., 20507, 1-800-669-4000 (voice),

1-800-800-3302 (TTY), or 1-800-669-EEOC (publications-voice).

There are a number of organizations that can provide information about drug and alcohol problems and assist individuals with such problems. Some of these are:

Employee Assistance Professional Association, 4601 North Fairfax Drive, Suite 1001, Arlington, VA, 22203, 703-522-6272.

Job Accommodation Network, 918 Chestnut Ridge Road, Suite 1, Morgantown, WV 26506-6080, 1-800-ADA-WORK (voice/TTY).

Legal Action Center, 153 Waverly Place, New York, NY, 10014, 212-243-1313, and 236 Massachusetts Avenue, N.E., Suite 510, Washington, D.C., 20002, 202-544-5478.

The Workplace Center, Columbia University, School of Social Work, 622 West 113th Street, New York, NY, 10025, 212-854-5458.

Primary Reference Documents

Americans with Disabilities Act

Controlled Substances Act

Controlled Substances & Alcohol Use and Testing. 49 CFR part 382. Revised Sept. 22, 1995

Drug-Free Workplace Act

The Family and Medical Leave Act of 1993

Limitations on Alcohol Use by Transportation Workers. Common Preamble for DOT agencies.

DOT publication. February 15, 1994

Montana Workforce Drug and Alcohol Testing Act Sections 39-2-205, through 39-2-211, MCA

Montana Human Rights Act

Montana Motor Carrier Safety Regulations Guidelines. 1995

Omnibus Transportation Employee Testing Act of 1991.

Procedures for Transportation Workplace Drug Testing Programs. 49 CFR part 40. Revised April

20, 1995

Regulatory Guidance, Part 382, Controlled Substances & Alcohol Use and Testing. DOT 1995

Supplemental Information and Analysis, Part 382, Controlled Substances & Alcohol Use and

Testing. DOT publication. March 17, 1994

Appendix B

**Identification and Evaluation
of
School Bus Route and Hazard Marking Systems**

Final Report

**Work Performed Under a Grant From
The National Highway Traffic Safety Administration
U.S. Department of Transportation**

Grant # DTNH22-97-G-05155

June 1998

**National Association of State Directors of Pupil Transportation Services
116 Howe Drive
Dover, DE 19901**

**Identification and Evaluation
of
School Bus Route and Hazard Marking Systems
NHTSA Grant # DTNH22-97-G-05155
National Association of State Directors of Pupil Transportation Services**

Background:

An estimated 23 million public school students ride over 400,000 school buses twice daily to go to and from school. Additionally, it has been estimated that another one to two million students ride school buses to and from school-related activities each day. In the course of a school year, school buses transport students over four billion miles. The safety of pupil transportation is of significant concern to Federal, State and local governments, school districts, school administrators, parents, and the general public.

Within the school transportation industry itself, there is a long history of significant efforts to make school transportation safe and efficient. Pupil transportation programs date back to the earliest years of the 20th century. By 1910, thirty states had pupil transportation programs in place. The first “vehicles” used to transport students were nothing more than horse-drawn carts which were borrowed from local farmers. With the development of automobiles and trucks with gasoline-powered engines, the school “wagon” was replaced with the school “truck.” During the 1920's and 1930's, the Nation's roadway system was expanding, especially in rural communities. This led to a greater need for vehicles to transport school children and the formation of an industry of school bus manufacturers.

As the number of school buses operating on the roadways increased, there came the inevitable problems. Several serious tragedies occurred involving school buses which caused school officials to think seriously about developing safety guidelines for school buses. In 1939, representatives from 48 states gathered to develop recommendations for school buses. Since that time, there have been a total of 12 National Conferences on School Transportation where representatives from each state gather to revise existing and establish new safety guidelines for school buses and operating procedures for the safe transportation of school children, including those with disabilities. The product of these national conferences are referred to as the National Guidelines for School Transportation. The National Conferences are jointly sponsored by the National Association of State Directors of Pupil Transportation Services (which includes the School Bus Manufacturers Technical Council), the National Association for Pupil Transportation, and the National School Transportation Association, the National Safety Council, and Central Missouri State University.

To help ensure the transportation safety of students on school buses, the National Highway Traffic Safety Administration (NHTSA) establishes and enforces a series of Federal Motor Vehicle Safety Standards governing the safety performance and manufacture of school buses. NHTSA also conducts a safety defects investigation program to identify safety defects in motor vehicles, including school buses, and requires manufacturers to recall and remedy defective vehicles free of charge. In addition, NHTSA's Guideline #17, “Pupil Transportation Safety,” establishes minimum recommendations for a pupil transportation safety program, including the identification, operation, and maintenance of buses used for transporting students; training of passengers, pedestrians, and bicycle riders; and administration.

Even with the school bus-specific Federal Motor Vehicle Safety Standards, NHTSA's safety defect investigation and recall program, NHTSA's Guideline #17, and the school transportation industry's National Guidelines for School Transportation, a few school bus safety problems continue to persist. One of these problems was identified as a contributing factor in a tragic crash that occurred on October 25, 1995, in Fox River Grove, Illinois. On that day, a commuter train hit a school bus that was stopped at a highway-railway grade crossing. Seven students were killed and the school

bus driver and 24 other students were injured. The school bus driver had taken all of the appropriate actions prior to crossing the railroad tracks, but unknowingly failed to completely clear the railway track while the school bus was stopped at a red traffic light. The commuter train struck the rearmost side of the school bus.

At the conclusion of its investigation of the crash, the National Transportation Safety Board identified one of the factors contributing to the crash as an inadequate school district routing and hazard marking system. The Safety Board noted that the substitute school bus driver operating the bus that day was unaware of the hazard at the highway-railroad crossing because “the methods employed by the school district to identify and evaluate route hazards were ineffective.”

In addition to the Safety Board’s investigation of the Fox River Grove crash, the U.S. Department of Transportation formed a Grade Crossing Task Force to review the decision-making process for designing, constructing, and operating rail crossings. The Task Force published its findings in a March 1996 report, *Accidents That Shouldn’t Happen*. One recommendation from that report calls for NHTSA to “work with State directors of pupil transportation, through relevant national organizations, to develop a system to improve school bus routing safety by focusing on highway-railroad grade crossings.”

As a result of the recommendations from the Safety Board and the Grade Crossing Task Force, NHTSA provided a grant to the National Association of State Directors of Pupil Transportation Services to:

1. Research the issue of school bus route hazards and route hazard marking systems;
2. Develop a set of guidelines that school transportation officials could utilize in developing a system for identifying school bus route hazards that meets the needs of their locality;
3. Provide suggestions for reasonable and appropriate means of informing school bus drivers of potential school bus route hazards so as to educate them on how to deal with any route hazards that can not be avoided; and
4. Suggest methods to disseminate the information developed during this project to the school transportation community.

School Bus Driver Training

School bus driver training is one of the most important components of the school bus transportation system. A critical component of school bus driver training is the recognition of potential driving hazards and appropriate adjustment of driving behavior to ensure the safety of the school bus occupants. The goal of this project and report is to provide school bus drivers and substitute drivers with a list of locations/situations that should be recognized as being potentially hazardous. School bus drivers should be properly trained to deal with these potentially hazardous conditions. In addition, school bus drivers should be trained to deal with hazardous conditions that occur suddenly or are of a temporary nature. Constant dialogue between school bus drivers and route planners is critical to ensure the continued safe transportation of students in school buses.

Methodology:

The National Association of State Directors of Pupil Transportation Services undertook the following activities to develop a school bus route hazard identification system and a means of educating school bus drivers about such hazards. Each of the activities included review and comment by the various state directors of pupil transportation. Throughout this report, specific comments from states are included to illustrate the involvement and insight provided by the state directors.

1. Define “School Bus Route Hazard”

The first, and most critical, step was to develop an acceptable and reasonable definition of what constitutes a “school bus route hazard.” From a practicable perspective, “school bus route hazards” can be grouped into two distinct categories. First, there are “driving hazards” that are encountered while operating a school bus route, such as railroad grade crossings and industrial intersections. Second, there are “school bus loading zone hazards” that are encountered at a school bus stop, such as a narrow, busy street without sidewalks or dangerous curves that do not provide the school bus driver, the students, or other motorists with an adequate view of the school bus loading zone. The scope of work for this project only included the first category of school bus route hazards -- driving hazards.

2. Develop a “Model” School Bus Route Hazard Identification System

Based on the knowledge and expertise of individuals within the school transportation industry, an ideal program that could be used to assist states and local school districts in identifying and evaluating potential school bus route hazards was defined. This ideal program became the “model” against which existing school bus route hazard identification programs were compared.

3. Review Existing Materials/Information

Examples of existing state or local school district route hazard identification programs were reviewed and compared with the “model” system described above. The existing programs were reviewed in terms of the ability of the program to identify route hazards and communicate that information to the appropriate individuals.

4. Develop a Recommended System

Based on the review of existing programs, as compared to the “model” system, a recommended school bus driving route hazard identification system was developed that could provide states and local school districts with an efficient method for identifying potential school bus route hazards and a means of communicating information about those hazards to school bus drivers and trainers, route planners, and other appropriate school transportation officials.

5. Dissemination Approaches

Finally, suggestions were made on how to disseminate the “recommended” system to the school transportation community, and what approaches should be taken to educate state and local school transportation providers on the importance of adopting such a school bus driving route hazard identification system.

Results of Program Activities:

Result #1 -- Definition of a School Bus Route Driving Hazard

While it is possible to develop a list of the potential hazardous locations/situations that a school bus driver could encounter in the course of driving a school bus route, it is not possible to develop a definitive list of every potential driving hazard. As was pointed out by the state of Indiana during discussions of this project, “Regular review of the route hazards list is encouraged. This will keep the document accurate and permit the addition of ‘yet-to-be-discovered’ hazards.”

Some potential school bus route driving hazards can be considered as “fixed,” in that the situation or condition exists (such as a railroad crossing), can be identified, and drivers can be informed and educated about the potential hazard. Other potential driving hazards occur without advanced warning -- examples include: (1) inclement weather conditions, such as fog, sand storms, blinding sunlight, snow storms, etc.; (2) conditions that result from weather conditions, such as flooded roadways, fallen trees, downed power lines; and (3) accident locations. This report focuses on potential school bus route driving hazards that are of a “fixed” nature.

Discussion

Table 1 details many of the potentially hazardous locations/situations that a school bus driver could encounter in the course of driving a school bus route. These potential driving hazards were selected based on the belief that the mere existence of any one of these conditions poses possible serious consequences if the school bus driver is not aware of the existence of the hazard. While a hazard could develop at any time while driving a school bus (for example, a tree could fall across a road during a storm, or a stream could overflow, or a wet road could suddenly ice over), this list defines only fixed conditions that, by their presence, have been deemed a potential driving hazard. Also, this list is limited to the hazardous locations/situations encountered while driving the school bus, not during loading and unloading operations.

For each potential school bus route driving hazard, a list of factors or situations that could contribute to causing the hazard is provided. It is important to remember that this list of potential school bus route driving hazards, and the factors/situations within them, is not “all-inclusive.”

States and local school districts may encounter factors and situations that are not listed in Table 1, but which they deem are potentially hazardous.

Table 1.

List of Potentially Hazardous Locations/Situations on School Bus Routes

Railroad Grade Crossing

- Number of tracks
- Visual obstructions to determine type and travel speeds of trains
- Train schedules (consider unscheduled trains also)
- Presence or absence of grade crossing controls
- Unique characteristics or operation of grade crossing controls
- Presence or absence of traffic control signals, including interaction with grade crossing controls
- Size of queuing area before and after the tracks
- Expected traffic conditions at various times during the day
- Roadway design near the grade crossing

Dangerous Intersections and Roadways

- High-frequency crash locations as defined by state transportation and/or law enforcement officials
- Uncontrolled intersections
- Curves and intersections with limited sight distances
- Areas with no shoulders
- Visibility of traffic control signals
- Coordination of traffic control signals with others in the immediate area

Bridges, Tunnels/Underpasses and Overpasses

- Weight capacity
- Height clearances
- Lane width

Queuing/Storage Areas

- Short acceleration/deceleration lanes
- Limited median areas crossing multi-lane highways
- Turning lanes

Industrial Intersections and Construction Zones

- Areas where heavy vehicles/equipment operate on a regular basis, and may be entering, exiting, or crossing the roadway

Steep Downgrades

- Mountainous areas where brake condition and braking operations are important
- Location of out-of-control vehicle run-off areas

Areas of Significant Speed Differential Between Vehicles

- On-off ramps to high-speed roads
- Farm vehicle areas, including non-motorized vehicles on the road
- Mountain terrain

Pedestrian Areas

- School bus loading/unloading zones
- Narrow streets with parked motor vehicles – children darting between vehicles
- Congested shopping and business areas

Other Conditions Identified in Local Area

- Unique roadway locations, for example;
 - roadways without guardrails that are next to rivers, lakes, etc.
 - dirt or gravel roads that could affect braking
- Rock quarry or open pits
- Areas with problems related to right-turn-on-red laws
- Areas with visibility problems due to air quality/industrial smoke/etc.
- Areas where emergency equipment operate on a regular basis
 - fire stations
 - hospitals

Result #2 -- Development of a “Model” School Bus Route Hazard Identification System

During the course of this project, a “model” school route hazard identification system was outlined. It was recognized that such a system would consist of three major components:

1. A list of potential driving hazards;
2. A specified procedure/schedule for conducting on-site reviews of school bus routes; and
3. An efficient and effective means of informing school bus drivers of the presence of potential driving route hazards.

Of the three components, the first was determined to be the most critical, since without a definition of what constitutes a school bus route driving hazard, the other components would have little utility. Additionally, developing a procedure and schedule for reviewing school bus routes and an information dissemination plan were viewed as administrative policy decisions that were independent of the technical issues related to identifying potential school bus route driving hazards. Accordingly, the focus of the effort was placed on identifying and listing potential school bus route driving hazards.

An initial list of potential hazards was prepared during a Working Session of state directors during the 1997 annual conference of the National Association of State Directors of Pupil Transportation Services. The results of that session were summarized and provided for review to all state directors of pupil transportation. The final results of that effort are discussed in the previous section of this report, "Result #1 – Definition of a School Bus Route Driving Hazard."

Result #3 -- Review of Existing Materials/Information

A review of existing school bus route hazard identification systems was made to see if any system assessed all of the potential driving hazards developed during the Working Session at the 1997 annual conference. Not one was found. However, this effort identified additional potential hazards that were not previously considered, but were ultimately included in the final list of school bus route driving hazards as defined in Result #1 above.

Result #4 -- Defining a Route Hazard Identification System

The major goal of this project was to develop a system that a state or a local school district could use to:

1. Identify any fixed locations/situations that constitute a potential school bus driving hazard; and
2. Inform school bus drivers and substitute drivers of each identified potential route hazard on the school bus route(s) they drive.

Identification

The first component of such a system would consist of an established, systematic process to evaluate all school bus routes to determine whether any potential fixed driving hazards exist. An annual review of each school bus route by a person trained to identify potential route driving hazards would provide the basis for identifying any potential hazards. In addition, school bus drivers should be trained in how to recognize a potential school bus route driving hazard, and to report any new potential hazardous conditions to the appropriate school transportation officials. In effect, this would provide for continual monitoring and review of school bus routes so school bus drivers are aware of all potential fixed driving hazards on their routes. As stated by Connecticut, "constant communication between school bus drivers and route planners is critical to safety." Hazards can and do change, even on a daily basis. As such, "daily updates of critical route hazards should be foremost in the minds of dispatchers and drivers."

A checklist format based on the above list of potential school bus driving route hazards (Result #1 -- Table 1) would provide for a consistent means of ensuring that such items were considered during the review of each school bus route. An example of such a checklist for the items identified in Result #1 appears as Appendix A to this report, and is based on a format utilized in Oklahoma. It is important to remember that a state or a local school district should ensure that any potential hazards that may be unique to their area, or any potential hazards that they believe were missing, are added to the checklist.

In addition to regular school bus routes, there also can be potential driving hazards along routes taken for field trips or extra-curricular activities. In such cases, drivers

may be able to identify potential route driving hazards based on their personal knowledge of the route or on a previous trip to the same location.

Information

The second component of a school bus route driving hazard identification system consists of a means of informing all regular and substitute school bus drivers of the potential driving hazards on their school bus route(s). New Jersey stressed the importance of “the need for drivers and driver trainers to make clear notes of these hazards for all substitute drivers.”

In addition to the drivers, school bus route planners/schedulers/dispatchers/etc. should be made aware of all information about potential driving hazards on the school bus routes. This information would allow them to make changes or adjustments to the routes, when reasonable and practicable, so as to minimize or eliminate the exposure of school buses to these route driving hazards.

Informing the necessary people about potential school bus route driving hazards can be accomplished in a number of ways. The most practical, and possibly most easily understandable, appears to be through the use of a map that is visually annotated to identify potential route hazards. The same map could obviously be used for other purposes, including designating the actual school bus route and student pickup/drop off locations. Additionally, as the states of Ohio and Virginia noted in their comments to this project, information on the location of police/fire/rescue stations, hospitals, and other emergency care facilities, and “possible ‘safe stops’ where a school bus may pull off the road and await aid in the event of an emergency” could be added to the map.

A number of local school districts currently use mapping techniques to document the streets in their district, the location of the students’ homes, the school bus stops, and the routes traveled by school buses. Inexpensive color printers allow school districts to print color maps of their bus routes, and computer software allows route planners to incorporate custom information, such as route hazards, on the map.

Whatever means is chosen, it is important that school bus drivers be provided with route hazard information in a standardized, consistent manner. Also, the route hazard information should be available to the school bus driver every day, no matter which school bus is driven on that day.

Training

While not a specific part of this project, the importance of training school transportation providers about school bus route driving hazards can not be understated. In their comments, Ohio noted that the contents of a route hazard identification system are “only good if utilized.” In other words, if drivers are not made aware of the potential driving hazards and trained on how to deal with such potential hazards, then no benefits will accrue from efforts to identify potential route hazards. Mississippi commented that its training in route hazards constantly works “to instill in each driver the concept of Expect the Unexpected.”

However, training alone does not guarantee success. As Connecticut stated, “Route hazards is an area in which some training can be afforded, but common sense and networking among drivers, local officials, and school district personnel is paramount to a safe and successful route hazard notification program.”

Result #5 -- Dissemination Approaches

Based on the belief that the ultimate success of a school bus route driving hazard identification system is dependent on the awareness and use of the system by school transportation providers, it is strongly suggested that the results of this project be provided to all state directors of pupil transportation, the appropriate student transportation officials in each school district, and organizations affiliated with private/parochial schools. The dissemination to state directors and public schools districts could be made by use of direct mailings. The dissemination to private/parochial schools could be made through national associations that represent such schools.

As a supplement to direct mailings, the report on this project should be made available on the NHTSA and various school transportation web sites in a form that can be downloaded. In addition, the results of this project should be publicized through the various media that deal with pupil transportation.

Non-Fixed School Bus Route Hazards:

As mentioned earlier, this project only dealt with school bus route driving hazards that are “fixed.” However, it is recognized that other driving hazards can occur without advanced warning. These often result from inclement/adverse weather conditions or poor visibility conditions. It is important for school bus drivers to be aware of such possibilities and be trained on how to deal with such sudden potential hazards. As an example of some non-fixed driving hazards, Iowa includes in its School Bus Driver’s Handbook procedures to follow should a school bus encounter a tornado or Agri-Chemical clouding along school bus routes. Also, Delaware provides drivers with information in its School Bus Driver’s Handbook to prepare them for the following:

Adverse weather conditions

- Extreme cold
- Extreme heat
- Wind
- Rain
- Fog
- Snow/ice

Conditions affecting visibility

- Sun glare
- Darkness
- Fog/rain/snow
- Curves and hills

Wild animals are another example of a non-fixed school bus route driving hazard. In many rural and suburban areas, animals such as deer and live stock can be a serious danger to motorists. School bus drivers should be made aware of such situations and learn how to deal with them.

Conclusions:

Recognizing the importance of identifying school bus route driving hazards, the National Association of State Directors of Pupil Transportation Services has conducted this study for the National Highway Traffic Safety Administration. Verbal and written information from members of the Association was consolidated to focus on the key issues and the best approach for addressing the problem of driving hazards on school bus routes. The following conclusions were reached during the study:

- Driving hazards can and do exist on school bus routes.
- Driving hazards on school bus routes that are of a “fixed” nature can be identified.
- School transportation officials should establish a program to routinely and systematically evaluate all school bus routes for potential driving hazards.
- A list of potential fixed school bus route driving hazards has been developed for use in evaluating school bus routes.
- Information on potential school bus route driving hazards should be provided to all regular and substitute school bus drivers, route planners, dispatchers, and other appropriate personnel.
- School bus drivers should be trained on how to effectively deal with potential school bus route driving hazards, of both a fixed or sudden nature.
- The results of this project should receive wide dissemination.

The National Association of State Directors of Pupil Transportation Services encourages states, local school districts, and private/parochial schools to review this report in conjunction with their school transportation operations and take whatever actions are necessary to ensure that school bus route driving hazards are identified and made known to all appropriate school bus drivers and school transportation personnel.

Appendix A
Checklist for
Identifying Potential School Bus Route
Fixed Driving Hazards

Railroad Grade Crossings

Railroad Grade Crossing Identification Number _____

Location _____

How many tracks are present? _____

What are the times of the scheduled trains? _____

What types of trains use the track? Passenger _____ Freight _____ Commuter _____

What are the travel speeds of the scheduled trains? _____

- | | Yes | No |
|---|-------|-------|
| • Are the regulatory signs (crossbucks) clearly visible? | _____ | _____ |
| • Are there regulatory devices (lights/gates/bells) present? | _____ | _____ |
| • Are there any unique characteristics to the operation of the crossing controls? | _____ | _____ |

What are they? _____

(Railroad Grade Crossing Continued Next Page)

Appendix A

Railroad Grade Crossings (continued)

- | | Yes | No |
|--|-------|-------|
| • When stopped approximately 15 feet from the nearest railroad track, is there an unobstructed sight distance of approximately 1,000 feet in both directions? | _____ | _____ |
| • Is there at least enough room on the other side of the furthest railroad track for the largest school bus to stop without encroaching on the train's right-of-way? | _____ | _____ |
| • Are there any roadway design features that could affect the safe operation of a school bus at the railroad crossing? | _____ | _____ |

What are they? _____

Appendix A - Continued

Dangerous Intersections and Roadways

Location _____

Yes

No

- Is this a high-frequency crash location?

- Are traffic control devices present?

- Are there visibility obstructions?

What are they? _____

- Are there areas with no shoulders?

- Are there peculiar roadway features?

What are they? _____

Appendix A - Continued

Bridges, Tunnels/Underpasses and Overpasses

Location _____

- | | Yes | No |
|---|-------|-------|
| • Is the weight capacity of the bridge/overpass sufficient for a fully-loaded school bus? | _____ | _____ |
| • Is the height of the tunnel/underpass adequate for the tallest school bus, including open roof hatches? | _____ | _____ |
| • Is the lane width of the bridge, tunnel/underpass, or overpass adequate for the widest school bus, including the mirrors? | _____ | _____ |

Appendix A – Continued

Queuing/Storage Areas

Location _____

	Yes	No
• Is there sufficient area for the largest school bus in the acceleration/deceleration lane?	_____	_____
• Is there sufficient area for the largest school bus in the median area between a multi-lane road?	_____	_____
• Is there sufficient area for the largest school bus in the turning lane?	_____	_____

Appendix A – Continued

Industrial Intersections and Construction Zones

Location _____

	Yes	No
• Do heavy vehicles enter/exit/cross the roadway frequently?	_____	_____
• Are there highway signs alerting drivers of the industrial/construction traffic?	_____	_____
• Are there traffic controls in the area?	_____	_____

Appendix A – Continued

Steep Downgrades

Location _____

	Yes	No
• Are there highway signs alerting drivers to the downgrade?	_____	_____
• Are there signs alerting drivers to “Check Brakes”?	_____	_____
• Are there areas marked and designated for vehicles to safely leave the road (run-off areas)?	_____	_____

Appendix A – Continued

Areas of Significant Speed Differential Between Vehicles

Location _____

	Yes	No
• Is there sufficient space to accelerate/decelerate a school bus when entering/exiting a high-speed road?	_____	_____
• Does slow-moving farm equipment operate on the road?	_____	_____
• Do non-motorized vehicles, e.g., horse-drawn carriages, operate on the road?	_____	_____
• Are there roadway conditions, e.g., mountainous terrain, that result in vehicles operating at high speeds and low speeds?	_____	_____

What are they? _____

Appendix A – Continued

Pedestrian Areas

Location _____

	Yes	No
• Are there difficulties seeing pedestrians at school bus stops?	_____	_____
• Are there narrow streets with parked vehicles where children may run into the street?	_____	_____
• Are there areas of heavy pedestrian congestion, e.g., shopping and business areas?	_____	_____

Appendix A – Continued

Other Conditions Identified in Local Area

Location _____

- | | Yes | No |
|---|-------|-------|
| • Are there unique roadway conditions? | | |
| • roads without guardrails that pose a danger, e.g., next to rivers, lakes, quarries? | _____ | _____ |
| • dirt or gravel roads that could affect braking? | _____ | _____ |
| • Others? | | |
| What are they? _____ | | |
| _____ | | |

- | | | |
|--|-------|-------|
| • Are there roadway conditions that make it difficult to make a “right turn on red?” | _____ | _____ |
|--|-------|-------|

What are they? _____

- | | | |
|---|-------|-------|
| • Are there areas with visibility problems due to industrial smoke, air quality, etc.? | _____ | _____ |
| • Are there areas where emergency equipment operate on a regular basis, e.g., fire stations or hospitals? | _____ | _____ |

Appendix C

EMERGENCY AND RESCUE PROCEDURES:

A GUIDELINE MANUAL FOR SCHOOL BUS INVOLVEMENT



NASDPTS Task Force:

Harlan Tull, Chairman

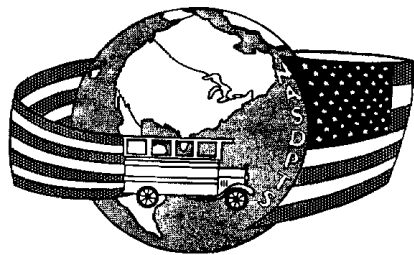
Michael Roscoe, Kentucky

Ron Kinney, California

Len Nachman, Minnesota

John Dattalo, Pennsylvania

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National Association of State Director of Pupil Transportation Services

Dear Emergency Manual Recipient:

At the request of the National Transportation Safety Board (NTSB) and with concurrence of the National Highway Traffic Safety Administration (NHTSA), the National Association of State Directors of Pupil Transportation Services (NASDPTS) were asked to develop a procedural manual for interaction of various agencies in the event of a school bus accident or other disaster.

A task force was developed, naming Harlan Tull-Del as Chair, and members Ron Kinney-CA, Michael Roscoe-KY, Ken Nachman-MN, John Dattalo-PA and Terry Voy-IA, later joined the group. The assistance of Lt. Barry Beck of the Delaware State Police, and Joe Murabito and Phil Young of Delaware State Fire School, was deeply appreciated.

This manual is issued to each State Director for Pupil Transportation Services for reproduction and dissemination to all first responders in each state. This includes police, fire, ambulance, emergency medical technicians and anyone else designated to respond to school bus accidents or disasters.

This manual is copyrighted and is not for sale by anyone without express permission of the National Association of State Directors of Pupil Transportation Services.

States may add any information or laws indigenous to their state but must give credit to NASDPTS as the source. Both paper version and diskette form of this manual are issued to each state.

The manual is comprised of sections for each first responder agency but please read the whole manual so you can see who is doing what. The appendices are especially important as well.

Good luck. Remember: "Kids Come First". Please take care of our future - the children.

Sincerely,

Harlan Tull
President, NASDPTS

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FOREWORD

School bus accidents can happen anywhere, anytime or involve anyone. Time of day, day of week, weather conditions, road surface conditions, construction, the other vehicle, or our own passengers, can all be contributing factors. There doesn't have to be an accident to cause the evacuation of the school bus. An on-board fire or the school bus stalling in a dangerous place like a railroad crossing could be reason to evacuate the bus. These are but a few of the causes to evacuate.

What do you do in case of an accident? Whose responsibility is it to take what action? The school bus driver is usually the only adult immediately available. The radio may be available to call for assistance but some school buses are not radio equipped and in some cases the radio is out of service due to the fire or accident. What are the contingency plans to seek help in an emergency?

When emergency responders (fire, police or ambulance) arrive on the scene, who is in charge? Clearly the school bus driver or transportation official is not responsible for ambulance, police or rescue personnel.

Do you have a contingency plan to cover the many aspects of accident and other emergency procedures? The school bus driver will surely evacuate the pupils - but have you trained for this procedure? Do you have a plan and have you practiced emergency evacuation procedures? Has your state or district set in motion plans and practices for responsibilities for different aspects of emergency procedures and with the other agencies involved?

Water rescue and natural disaster incidents involving the school bus are not sufficiently different situations to cause a separate section of this manual. In your planning, include references to those types of emergencies as well as the situations referred to in the body of this manual.

The more you think about it, there certainly is a lot to think about; a lot to plan for; a lot to train for; a lot to practice for. We carry the world's most precious product, the future of our nation. We must be ready.

Presented here is a set of practical guidelines for putting together an emergency preparedness procedure for school bus evacuation. Police, fire, ambulance and school transportation officials assisted in its preparation.

EMERGENCY RESPONSE:

TRANSPORTATION PERSONNEL

GUIDELINES FOR ENROUTE EMERGENCY BUS EVACUATION

The intent of this procedure is to provide guidelines for evacuating a bus only when absolutely necessary for the safety of students and staff in an emergency situation.

PREPARING AN EMERGENCY EVACUATION PLAN

Transportation staff should have an emergency evacuation plan which considers the individual capabilities and needs of each student, the type of behavior which might be exhibited during an emergency evacuation, and the type of wheelchair or support equipment being used for students. Some issues to consider in establishing an evacuation plan are:

1. Which students could help, and to what extent.
2. How to deal with individual emergencies during the evacuation process, such as seizures.
3. Whether students should be evacuated in their wheelchairs, or removed from their wheelchairs before evacuation.
4. How to disconnect or cut wheelchair securement and occupant protection equipment, including belts, trays, and other support equipment.
5. Identify which students might run following evacuation so they could be evacuated with the driver or aide.
6. Know the length of time a student requiring life support equipment or medical care procedures can survive if such service is interrupted or delayed during the evacuation process.

Every driver and/or paraprofessional should be able to physically carry-out the emergency evacuation plan upon request without hesitation. Many emergencies only allow 2 to 5 minutes to complete an evacuation before possible serious injury to students might occur.

EMERGENCY PROCEDURES

Each school district should have a pre-emergency plan. This plan should be carefully thought through and developed in cooperation with all those whose services would be required in the event of various types of emergencies. The school transportation supervisor, school administrators, teachers, drivers, maintenance and service personnel, students and others should be instructed in the procedures to be followed in the event of the contingencies provided for in the plan.

Following are examples of contingencies other than an accident or vehicle fire (Appendix A) that should be planned for:

- * **Sudden Disability of Driver**
Procedure for handling situations resulting in the fatal injury or disability of the bus driver should be established and communicated to the pupils.
- * **Road Failure**
Here the pre-emergency plan should cover the procedure for securing the bus, assessing the need to evacuate, disposition, and controlling of the passengers, diagnosing the cause(s) of the road failure, notifying school officials, securing alternate equipment, pre-trip inspection of alternate equipment by the driver and repairing and recovering the disabled school bus. This type of road failure could be in such a hazardous location that the school bus should be evacuated.

SAFE RIDING PRACTICES (Appendix F)

Some accidents are indirectly caused by students who distract the bus driver. A program of instruction in safe riding practices is necessary to make students aware that, as passengers, they are responsible for their own safety as well as the safety of others.

Good pupil behavior while entering, riding, or leaving the bus contributes in many ways to safe transportation. Such conduct makes it possible for the driver to give full attention to the routine matters involved in the safe operation of the bus and holds to a minimum those conditions that might cause pupils to be injured. You will no doubt be asked by your transportation department to help instruct students in safe bus riding practices. Programs that are developed should stress: safe riding practices, loading and unloading procedures, proper seat position, red-light crossover procedures, proper noise level, student responsibility, and general behavior for bus passengers.

Because drivers are charged with the responsibility of the bus and its passengers at all times, it is essential they become completely trained with every aspect of safe riding practices. School bus drivers and pupils should not exit the bus if the bus is involved in an accident with downed power lines. They are safe in the bus and may be electrocuted if they tried to exit the vehicle. (The rubber wheels ground the bus. As soon as you step foot outside the bus your body will act as a conductor and you will be electrocuted.)

SCHOOL DISTRICT PRE-EMERGENCY PLAN

If a prior pre-emergency plan for each school bus on a particular school bus route has been generated, it will save precious minutes, time available to meet some other aspect of the emergency.

Police, fire, ambulance and emergency rescue personnel all receive training, and in large measure, know their jobs. The school bus presents a unique bearing on their jobs, however.

The school bus generally has a lot of passengers confined in a small area. While it has the service door and the rear emergency exit door as readily available escape routes, each window is a potential escape route also. At a minimum the side windows, through body specifications, should provide an unobstructed emergency opening at least 9 inches high and 22 inches wide, obtained by lowering the window. Many school buses are equipped with emergency push-out type windows. Still other states may mandate one or two emergency doors on the bus and larger windows (i.e., opening at least 12 inches high and 24 inches wide.)

There is no way that the police, fire and other emergency personnel are going to know the escape passageways of each particular school bus, but by each school district transportation office working with these agencies and sharing information, the agency personnel will grasp the concept of what is available. (Those agencies will note the specific sections of this manual for their part in the evacuation/rescue mission.)

THE SCHOOL BUS DRIVER PRE-EMERGENCY

The transportation officials should assist in developing the pre-emergency plan so that there is continuity among all drivers in the school district. The following are tasks that should be a part of any emergency plan:

1. The school bus evacuation plan - Successive pages will detail what information is needed to set up the evacuation plan itself and how to conduct emergency drills. It cannot be stressed enough that training of school bus drivers and pupils is paramount if we are to be successful. Many states mandate that formal school bus evacuation drills be conducted at least twice yearly. This encompasses the off-loading of the pupils so that they will know exactly what to do in the event of a real emergency. This should also include the evacuation of the special needs pupils. Evacuation procedures for special needs pupils should be well known and rehearsed. Planning is ineffective without practice.
(Appendix F)
2. The bus route - Know the location of fire stations, police stations and hospitals in the area. Most emergencies the bus driver faces entail the immobilization of the school bus and the determination of evacuating or not. Knowledge of the location of fire, police and hospitals could save a life. (Appendix E)

Knowledge of the route, even for the substitute or extra driver, helps the responding emergency personnel get to the school bus much faster. Whether the driver has radio contact with the dispatcher or must ask the assistance of others to telephone the request for emergency aid is of little good if the exact location is not given.

3. School bus emergency information - It is quite helpful, when the assistance of others is needed, to have the school bus information on a card. If you need to have someone else telephone for help, this base information would not have to be repeated or written down. The card should include the bus and route number and the school district name, address, and telephone number. This card information could have other supplemental data but only the most important base data should be included so as not to confuse the person calling in for you. Many areas of the country have the type of pay telephones which allow an emergency telephone call to 911 or police and fire without cost. If your area does not have that arrangement, two quarters should be taped to this card to allow the caller to summon emergency aid in a timely fashion.
4. The school bus - The driver should know the basics of the school bus components to allow them to better assess the seriousness of the situation. Just as one should not open the hood in the event of an engine fire, one should be able to assess an overheated motor or a broken radiator hose. The advent of a mandatory commercial drivers license with the expanded pre-trip inspection serves well in this instance, but does not cover everything and should not preclude additional training of the school bus driver to incorporate this type of school bus knowledge.
5. Route Plan - The school bus driver or any of the pupils (regular or special education) could have a medical emergency and a procedure should be developed along local guidelines on how to handle this situation. Questions to be considered and answers should be enumerated on:
 - Does the driver pull over and call emergency medical services?
 - Should the driver proceed to the nearest school, medical facility, police or fire station?
 - Does the school or school district have a medical consent form from the parents so that prehospital and hospital personnel can treat the pupil? Should that be considered or should you react only to the emergency phone numbers on the school health card?
 - There is a "National Standard Curriculum for Bystander Care." Children are particularly referenced in this manual. Should it apply in some or all cases? Check your state laws.

ASSESSING THE NEED TO EVACUATE

Student safety and control is best maintained by keeping students on the bus during an emergency and/or impending crisis situation, if doing so does not expose them to unnecessary risk or injury. A decision to evacuate should include consideration of the following conditions:

1. Recognize the hazard. The decision to exit/evacuate the bus must be a timely one. Wheelchair students take a lot more time.
2. Is there a fire involved? (Appendix A)
3. Is there a smell of raw or leaking fuel?
4. Is the bus likely to be hit by other vehicles?
5. Does the possibility exist that the bus will roll/tip causing further threat to safety?
6. Is the bus in direct path of a sighted tornado?
7. Has there been a major earthquake creating a dangerous environment?
8. Would removing students expose them to speeding traffic, severe weather, or a dangerous environment such as downed power lines?
9. Would moving pupils complicate injuries such as neck, back and other fractures?
10. Is there a hazardous materials spill involved? It may be safer to remain on the bus and not come in contact with the material.

GENERAL PROCEDURES TO FOLLOW FOR EMERGENCY EVACUATION

Keep the situation as orderly and low key as possible. If time and conditions permit, the bus driver should use the communication system to advise the dispatch office of the following:

1. The exact location, including the nearest intersecting road or familiar landmark.
2. The condition creating the emergency.
3. The type of assistance needed. (police, fire, ambulance)
4. Notification that the bus is being evacuated.

Analyze conditions to determine the safest exit(s) from the bus.

During evacuation, monitor conditions and adjust procedures to meet unexpected circumstances. The driver may have to conduct the evacuation from outside the bus.

Move evacuated students to the nearest safe location at least 100 feet from the bus. The dispersal/regrouping area must be upwind of any fire situation.

After the decision to evacuate is made, take the first aid kit with you. If there is a radio or telephone in the school bus, put it out the drivers left window in case it is still operable. This allows additional information to be transmitted to the dispatcher or emergency center.

Be prepared to give information to emergency medical personnel regarding individual students' medical or physical requirements.

Each school bus driver should have:

1. A manifest with student names.
2. Knowledge of seating or seating chart.
3. Knowledge of individual students abilities:
 - a. Runners
 - b. Helpers
 - c. Those who will panic
 - d. Those who will need help
 - e. By disability, communication ability, mobility
4. Assignments of students to seats:
 - a. Use the "buddy" system. Those that can help seated by those who need help.

5. Develop plans to control students outside the bus:
 - a. Hold hands
 - b. Sit down in a circle
 - c. Keep occupied until help arrives

INSTRUCTIONS FOR CONDUCTING EMERGENCY BUS EVACUATION DRILLS

There is an urgent need, due to the increased number of pupils being transported and the ever-increasing number of accidents on the highways, to instruct pupils on how to properly vacate a school bus in case of an emergency. It is possible for pupils to block the emergency door if all are trying to get out at the same time. There is also a possibility of danger when pupils jump from the rear emergency door exit. To avoid these situations, schools should organize and conduct emergency exit drills for all pupils who ride the school bus.

REASONS FOR ACTUAL EMERGENCY EVACUATIONS:

1. Fire or danger of fire. Being near an existing fire and unable to move the bus, or being near the presence of gasoline or other combustible material is considered dangerous and pupils should be evacuated. The bus should be stopped and evacuated immediately if the engine or any other portion of the bus is on fire. Pupils should be moved to a safe place 100 feet or more from the bus and instructed to remain there until the driver has determined that the danger has passed. (Appendix A)
2. Unsafe position. When the bus is stopped because of an accident, mechanical failure, road conditions, or human failure, the driver must determine immediately whether it is safer for pupils to remain on the bus or to evacuate the bus. (Appendix B)
3. Sight distance. In normal traffic conditions, the bus should be visible for a distance of 300 feet or more. A position over a hill or around a curve where such visibility does not exist should be considered reason for evacuation.
4. Mandatory evacuations. The driver must evacuate the bus when:
 - a. The final stopping point is in the path of a train or adjacent to railroad tracks.
 - b. The stopped position of the bus may change and increase danger (e.g. a bus comes to rest near a body of water or a precipice where it could still move and go into the water or over a cliff). The driver should be certain that the evacuation is carried out in a manner which affords maximum safety for the pupils.

- c. The stopped position of the bus is such that there is danger of collision.
- d. A hazardous materials spill has occurred. There is a need to quickly evacuate to an area upwind at least 300 feet from the incident.

IMPORTANT FACTORS PERTAINING TO SCHOOL BUS EVACUATION DRILLS:

1. Safety of pupils is of the utmost importance and must be first priority. Training, not teaching, is the key word, especially if there is a particular group that will not remember. (Appendix G)
2. All drills should be supervised by the principal or by persons assigned to act in a supervisory capacity. Police, rescue and fire personnel should be invited to participate in this training event so as to be prepared for a school bus emergency.
3. The bus driver is responsible for the safety of the pupils. When the driver is incapacitated and unable to direct the evacuation, school patrol members, appointed pupils or adult monitors should be authorized to direct the evacuation. It is important to have regular substitutes available. An effective driver and aide team is one that provides for a systematic arrangement of the vehicle environment which encourages appropriate pupil behavior. (Appendix F)

Pupils appointed to assist with evacuation drills should possess the following qualifications (Many jurisdictions require parental consent for these pupils):

- a. Maturity.
- b. Good citizenship.
- c. Live near end of bus route.

Appointed pupils should know how to:

- a. Turn off ignition switch/shut down engine.
- b. Set emergency brake.
- c. Summon help when and where needed.
- d. Use emergency windows or emergency escape exits.
- e. Open and close doors.
- f. Account for all pupils passing their station.
- g. Help small pupils off the bus.
- h. Set out warning reflectors.
- i. Use two way radio to summon help.
- j. Perform other duties as assigned.

4. Drills should be scheduled in a manner similar to fire drills held regularly in schools. They should be held more often during fall and spring months and conducted when the bus arrives at the school building with the pupils.
5. Drills should be restricted to school property and conducted under the supervision of school officials.
6. Types of drills should be varied.
7. Driver should stay in bus during the evacuation drill. He/she must set the parking brake, turn the engine off and place the manual transmission in gear.
8. Pupils should not be permitted to take lunch boxes, books, etc., with them when they leave the bus. The objectives are to get pupils off safely in the shortest time possible, and in an orderly fashion.
9. Pupils should be directed to a safe area at least 100 feet from the bus in an emergency drill and remain there until given further directions.
10. All pupils should participate in the drill, including those who ride only on special trips.
11. Each pupil should be instructed in proper safety precautions.
12. Pupils should be instructed in how and where to obtain assistance in emergencies. Written instructions and telephone numbers should be posted on the bus.

THERE ARE SEVERAL DIFFERENT DRILLS AVAILABLE

1. Front door evacuation. (Appendix F)
2. Rear floor-level emergency exit door evacuation. (Appendix F)
3. Side emergency exit door evacuation. (Appendix F)
4. Left, and rear floor-level exit doors evacuation. (Appendix F)
5. Rear, side and front floor-level exit doors evacuation. (Appendix F)
6. Front and side floor-level exit doors evacuation. (Appendix F)
7. Left rear floor-level emergency exit door evacuation. (Appendix F)
8. All rear engine buses are equipped with a left side emergency exit door in lieu of a rear emergency exit door. Exception: The rear windows become an emergency exit if the bus is on its side.
9. Students should be familiar with the operation of emergency exit windows, both side and rear, and roof hatches. All exits should be opened by students during evacuation drills to ensure their ability to operate such devices.
10. Every school bus driver shall ensure the students assigned to their bus are familiar with the emergency exit configuration of the assigned bus.

11. Seat rows and positions are identified on all buses and should be used for seating and identification of all students. (Appendix D)

SPECIAL EDUCATION BUS DRIVER **EMERGENCY PROCEDURES**

In the event of a major emergency (fire, flood, earthquake, collision with another vehicle or at a railroad crossing), the school bus driver's first responsibility is the safety and welfare of the students.

The bus driver **will** follow the emergency guidelines listed below, to the best of his/her ability. Passengers on the bus, both students and adults, **will** act under the driver's instructions.

DURING EMERGENCY - THE BUS DRIVER WILL

1. First bring the bus to a stop, in the safest possible location, then set the parking brake. Turn ignition to accessory and:
 - a. Activate the hazard lights.
 - b. Remain calm. Reassure students.
 - c. Notify dispatch via 2-way radio, if possible.
 - d. Turn on your AM-FM radio for disaster messages, if the bus is so equipped.
 - e. The decision to exit or evacuate the bus must be a timely one.
(Wheelchair students take a lot more time to evacuate)
2. Survey the scene, evaluate the circumstances, and determine:
 - a. Is it safe to continue driving the bus? (see IV.)
 - b. Is it safer to remain where parked? (see V.)
 - c. Is it safer to evacuate the passengers? (see VI.)
 - (1.) Recognize the hazard, give the order to evacuate, and evacuate using all available exits.
 - (2.) Re-group in a safe place, near the bus.
 - (3.) Remember, it is generally safer to remain on the bus.
3. If a paraprofessional (bus aide) is riding, enlist their assistance.
 - a. Give explicit instructions to the paraprofessional.
 - (1.) Check to make sure you are understood.
4. If you determine it is safe to continue, the emergency guidelines are as follows: (first notify dispatch, if possible)
 - a. Morning or mid-day runs going to school:

- (1.) Continue on route. Collect students and take to assigned school. **or**
 - (2.) Proceed to the nearest mass care facility. (Listen to your AM-FM and two-way radios for information), **or**
 - (3.) Proceed to the nearest school.
 - b. Afternoon or mid-day runs leaving from school:
 - (1.) Continue on route, if safe, **or**
 - (2.) Continue to the next pick-up school and stop, **or if too dangerous:**
 - (3.) Proceed to the nearest mass care facility. (Listen to your AM-FM and two-way radios for information) **or**
 - (4.) Proceed to the nearest school.
5. If you decide **not** to continue driving and **not** to evacuate:
 - a. Stay with passengers. Notify dispatcher, if possible. Monitor your AM-FM and two-way radios.
 - (1.) Calm and reassure passengers.
 - (2.) Tend to their needs.
 - (3.) Set out reflectors as required by law. (See Appendix E)
 - (4.) Wait until help arrives, or the emergency is over.
6. If you decide evacuation is required, notify dispatcher, if possible, then remove ignition key and:
 - a. Communicate to students during the evacuation from the bus.
 - b. Determine which emergency exit(s) will be used and direct/assist ambulatory students from that exit(s) to a safe regrouping area.
 - (1.) The dispersal (regrouping) area should be up-wind of any fire.
 - (2.) The dispersal (regrouping) area should be at least 100 feet from the bus, if possible.
 - (3.) The driver may have to conduct the evacuation from outside the bus.
 - (4.) Send the first-aid kit with the group.
 - c. If a paraprofessional is riding, have him/her assist by releasing the tie-downs or other securement for all passengers.
 - (1.) Have the paraprofessional move the wheelchairs/car seats/students to the proper emergency exit.
 - (2.) If alone, release the tie-downs and/or other securement and move the wheelchairs/car seats/students to the appropriate emergency exit.

- (3.) If the wheelchair lift is not operable, remove the students from their wheelchairs/car seats and place them by the appropriate emergency exit, then carry them off the bus to the dispersal (regrouping) area. (Get assistance from the paraprofessional, or a passerby if available.)
- d. Retain the passengers in the dispersal area, or a safer area if available. If you move your group, try to notify dispatch.

WARNING

In case of **fire on the school bus** remember that fire goes up and out normally. Crawl low in smoke and heat. There may be a **maximum of two minutes** before the **smoke** becomes **too toxic** to breathe. All students should be physically removed from their wheelchairs/car seats/bench seats, carried to the exit and passed on to a person outside the exit. If possible, carry one student under each arm. Wheelchairs and car seats can be replaced and students' bodies can be treated, but students cannot always be brought back to life.

- (1.) Wait there until:
 - (a.) A spare bus arrives.
 - (b.) An emergency vehicle arrives.
 - (c.) It is safe to return to the original bus.
- e. Obtain or write down the following passenger information: (use route manifest and make notes on it.) Also use forms seen in Appendices D and E.
 - (1.) Names
 - (2.) Addresses
 - (3.) Phone numbers
 - (4.) Note any injuries
 - (5.) Route information
 - (6.) Name of emergency transportation, if required
 - (7.) Where student(s) were transported to or who released to.
- f. Release students **only** to:
 - (1.) Parent or guardian
 - (2.) School staff, site manager, or transportation official
 - (3.) Mass care coordinator
 - (4.) National Guard
 - (5.) Representatives of the National Red Cross
 - (6.) Police, sheriff, fire department
- 7. Report to the nearest school if all children have been properly released, and notify transportation department of your location.

8. In all cases, follow directions as given by:
 - a. Transportation department dispatcher/supervisor
 - b. Local authorities
 - c. Office of disaster preparedness

EVACUATION PROCEDURES FOR ACTIVITY TRIPS AND FIELD TRIPS

In order to ensure the safety of school bus passengers in an actual emergency, every school bus driver assigned to transport students on activity trips or field trips should assign an evacuation team prior to each trip. The team may consist of teachers, coaches, students or any other passengers. Remember that walkers may at times ride a school bus on field and activity trips and should receive ridership training.

Passengers assigned to evacuation teams must be seated where they can effectively carry out their responsibilities in an emergency.

Each evacuation team should consist of at least the following:

1. A passenger assigned to set the parking brake, turn off the engine, turn on the hazard lights and call in on the radio or other means, and report the incident to the transportation department, in case the driver is unable to do so.
2. A passenger assigned to lead passengers to a safe location at least 100 feet from the bus and to take the first aid kit off the bus.
3. Two passengers assigned to stand outside the bus, next to the front door to help students exit the bus and to take the fire extinguisher.
4. Two passengers assigned to stand outside the rear and/or side emergency exit door(s) to help students exit the bus.

In addition to assigning an evacuation team, the following information should be discussed and/or demonstrated prior to each activity trip or field trip:

1. Location and use of the fire extinguisher.
2. Location of the first aid kit.
3. Location of the warning reflectors.
4. Location and use of all emergency exits.
5. How to shut off the engine and set the parking brake.
6. How to open the front door, to include safety releases on manual, air, or vacuum doors if so equipped.
7. Instruct passengers to keep aisles clear at all times and not to block emergency exits.
8. Passengers should leave all belongings and get off the bus.

IF THE HANDICAPPED PUPIL IS IN A WHEELCHAIR

Exercise caution: some pupils have catheters or are tube fed. The hoses or tubes have to be anchored somewhere and sometimes are anchored to the wheelchair. If straps are severed and the pupil is pulled from the wheelchair to evacuate them, any bodily (including internal) hookups to the pupil are likely to be ripped from the body and possibly cause severe internal problems.

BUS DRIVER PRESENTATION (SUGGESTED)

It is a pleasure to be the bus driver for this trip. My name is Mr./Mrs./Ms. _____. I work for _____ bus line/school district.

We all know that a school bus is the safest means of transportation available. Emergencies do happen though, so I want to remind you of the procedures that you and I must follow in the event of an emergency.

School buses have only been evacuated on a few occasions, but if it does become necessary, each student must know what to do. I will appreciate it very much if you pay close attention to what I have to say in the next few minutes.

If it becomes necessary to evacuate the bus you will follow these rules:

You should remain seated and quiet until the bus is completely stopped. Do not change seats unless instructed to do so by the teacher or myself. You should face forward in the seat, and keep your hands, feet and head away from the windows and inside the bus at all times. You should be courteous to others and pay attention to the bus driver, teacher and evacuation helpers.

When you are moving to the proper emergency exit, do not push or shove. While leaving the bus please use the handrails or the evacuation helpers' hands. Be on the lookout for traffic and/or pedestrians. Walk directly to a safe area and remain there with your group.

Be sure you move away from the front, sides, or back of the bus. These are all areas where you cannot be seen from inside. If the bus was moved while you were standing in one of these areas, you could be seriously injured or killed. These areas are called the danger zones. So remember to stay away from the danger zone areas.

NOTE 1

At this time you should appoint the evacuation helpers and leader. You have had time to evaluate the riders. Pick the older more mature students. Assign their positions.

NOTE 2

The following presentation will vary with the type of bus and number of exits to be evacuated. Keep it simple. Use the evacuation guides in Appendix F.

NOTE 3

If chaperons or teachers are on the field or activity trip, they should be assigned to areas where they could be the most help in the event of an emergency.

If an emergency situation happens, I will direct the assistants to their positions near the emergency exit door. I will then ask an assistant to open the emergency door exit, and jump out to his/her position. I will then have the next assistant jump out to stand on the other side of the door. The evacuation leader can then be helped out (if possible, take the first aid kit) and will lead the other students about 100 feet (50 paces) from the bus, where all the passengers will regroup.

The last passenger to leave the bus by the front door will pick up the fire extinguisher (if possible) and join the group. The fire extinguisher and the first aid kit are located _____.

The evacuation leader will help you with any problems when you join the group. Please walk to the regrouping area and remain there quietly until everyone has evacuated the bus.

Are there any questions? Thank you for your attention. I'm glad to have such a great group of riders. I know if anything goes wrong you will be able to handle it. Enjoy your ride.

LOCAL DISTRICT POLICY

Bus staff should be familiar with local district policy regarding:

1. Evacuation procedures to follow when enroute and a tornado is sighted, with no shelter near.
2. The type of medical information to be available on long distance trips in case of student injury.

NOTE

The safety of the bus and equipment is secondary to the safety of the students. No attempt should be made to save equipment or personal items until all students are removed from the bus, safely out of danger, and supervised.

ACCIDENT PROCEDURES

No two accidents are the same. The sequence suggested here may not be the same for every accident. Good common sense must be used.

The driver's primary responsibility is to the pupil passenger. Therefore, it is the driver's responsibility to remain calm. If the driver is unable to physically perform his or her duties, he/she should direct others to do them. Should this be the case, ask the oldest and most capable passengers(s) to help.

The following procedure is recommended:

1. Turn off the ignition switch.
2. Set the park brake.
3. Remain calm and reassure your passengers.
4. Check for any injuries to passengers:
 - a. If passengers are injured, follow first aid procedures and summon assistance.
5. Be alert regarding fire or the possibility of fire:
 - a. Look for smoke
 - b. Check for ruptured fuel tank and fuel lines
 - c. Check for electrical fire
 - d. Check for hot tires which may catch fire
6. Use warning devices such as reflectors or fusees where applicable. (Appendix B for positioning)
7. Keep all passengers in vehicle unless conditions warrant the possibility of fire, hazardous material spill or other danger which may warrant evacuation.
8. Account for all passengers: their presence as well as injury status.
9. Notify the dispatcher if you have a radio so that necessary assistance from police, fire, ambulance or rescue personnel may be obtained. If the school bus is not radio equipped then the alternative measure is to seek the assistance of an older, competent pupil passenger, a passing motorist or a resident of the area to call for help.
10. If possible, notify the school administration or transportation department of the accident.
11. Protect the scene:
 - a. Protect the passengers and the vehicle from further accidents and injuries.
 - b. Protect the scene from traffic and people so that evidence is not destroyed.
 - c. Under normal circumstances, the vehicle(s) involved should not be moved until law enforcement personnel advise the driver to do so. (Check local laws on this)
12. When police, fire or emergency personnel arrive, they are in command of the scene. The driver does not maintain control over the scene of the accident. The driver should focus control over the pupil passengers.

13. Do not discuss the facts of the accident except to give information to police, fire and rescue personnel, and to transportation officials:
 - a. Be prepared to provide a list of all passengers, ages, addresses and seating positions.
 - b. Give information about the school bus, insurance, owner and driver data. An emergency packet should be carried on the school bus and should include the registration information, emergency phone numbers, and any additional directives covering this subject.
 - c. Be patient, evaluate the questions and give clear concise answers.
 - d. Be sure to obtain the names, addresses and license numbers of any witnesses.
14. Follow any other directives issued by state or local school districts in the event of an accident.

At the scene of an accident involving property damage, injuries, fire or hazardous materials [haz mat] such as leaking fuel, the incident commander has full responsibility for managing the scene. This will be the senior fire, emergency medical service or police officer. The school bus driver is not the incident manager, but is in charge of the pupils. The police have the responsibility for investigating the cause of the accident, for providing safety to scene workers and for directing traffic. If rescue operations are on the scene, they handle the emergencies under their authority.

One of the big dangers when involved in an accident is to allow the passengers to get out of the school bus and mill around the scene or on the roadway. If you have to evacuate the bus because of fire danger or other reasons, be sure the passengers are moved to a safe location off the roadway and kept under control until you are given further instructions from an officer or school operation administrator.

EMERGENCY RESPONSE

PREFACE

School buses traverse our roads during peak traffic times, during the week, around sunrise and sunset. We compact large numbers of pupils into single vehicles. Buses are National School Bus Yellow (bright yellow) in color, have a lot of flashing lights, include stop arms on most, and are highly visible. They transport approximately 22,000,000 pupils almost 4 billion miles, 180 school days per year, at a cost of \$7.5 billion.

The school bus actually has a very low accident ratio compared to the miles traveled. But - when there is an accident, the potential for major problems is present.

Emergency responders must read this whole manual, even the first part for school bus operations to fully understand what they are facing. School buses are vastly different from years ago, before 1977, when the federal government mandated certain safety measures in the construction of school buses. We suggest that EMS and police should be aware of the bus routes in their jurisdiction so that pre-planning is done. Some routes could have mountainous terrain, while others have quarries or other pits full of water. Specialized equipment must be planned for.

There are questions of authority and responsibility at the scene for accidents and incidents pertinent to your jurisdiction. It is not the intent of this manual to define or defy jurisdiction between police, fire, rescue and ambulance operations. Those questions and answers are left to local authority rules, regulations and policy. Those answers may be added to this manual or under separate cover. There should be no jurisdictional questions at the scene of the accident or incident.

Since police are normally the first responders to the scene of an accident, an additional burden is squared upon their shoulders. All of the fire, police and EMS training cannot prepare people for a potential accident of this magnitude. Anywhere from just a few pupils upward to 80 or 90 could be on the school bus. The bus could be used for home-to school-to home transportation or used by Scouts or churches that do not conform to state vehicle policy. That means there are buses on our roadways that look like school buses, are the same color and general description, but are not legally school buses. All the bus owner has to do in most states is cover the words "School Bus" on the front and rear, take off the stop arm and either remove or cover the lighting system at the top of the bus on the front and rear.

The school bus is many times safer than the family car, according to the National Safety Council. The reasoning underlying that statement is the configuration of the school bus itself. It is built to grant the passenger a form of a passive restraint system. This compartmentalization theory is borne by the fact that, even though the accident ratio is far

less than most highway user vehicles, when the school bus is involved in an accident, injuries typically are not as severe.

The school bus today has higher seat backs, and the seats are close together. Couple that with the narrow aisles. The fact that the windows are normally above the shoulder and do not open from the bottom half. Unlike the automobile, the passengers are not close to a windshield, steering wheel, door opener mechanism, or the door. Even the front seat passengers have a padded modesty panel or stanchion in front of them. Seat belts are not used in most states. The seat belt actually would be more dangerous than no seat belt. If wearing a seat belt in a collision, the passenger would have his/her upper torso go forward while his/her hips would be an axis held by the seat belt. The forehead could strike the back of the seat in front and cause the neck to snap back. According to the American College of Orthopedic Physicians, the striking of the forehead would cause more trauma than the whole body sliding forward a short distance and the impact into the cushioned back of the seat in front of the passenger would be absorbed by the knees, chest and head in a straight forward motion. The pounds per square inch (psi) would be distributed over a greater portion of the body than just the forehead. Shoulder harnesses cannot be used because there is no place to attach the upper portion of it.

The large school bus is built higher from the ground than an automobile. The normal point of impact for an automobile striking a school bus from the side would be at or below the bus passengers feet.

The tempered or laminated glass used in the windows (front, side and rear) will not break easily. This serves to reduce injuries, which might be caused by glass.

The school bus is bright yellow (National School Bus Yellow) with black trim. It has an eight-light warning system (a minority of states only require a red four-light system) which flashes four large yellow lights approximately ten seconds before the stop and flashes four red lights when the bus has stopped. Many states have also adopted the stop arm. This stop arm is a stop sign, which may have flashing red lights. It swings out from the left side of the bus at about automobile driver eye height to warn drivers not to pass a stopped school bus.

Many states or local school authorities place the international handicap blue wheelchair symbol on the exterior of the rear emergency door on school buses equipped with a lift. These school buses make longer stops when picking up pupils in wheelchairs. This symbol allows the motorists behind the school bus to know why the longer stop is being made. It takes five minutes or longer to allow the bus driver and paraprofessional (if there to assist), to exit the bus, open the lift door, lower the lift, load the wheelchair, secure both the pupil and the wheelchair in the bus and be ready to proceed on the route. When feasible, these lift-equipped school buses do not interfere with on-going traffic, but in some instances it is unavoidable because door-to-door stops at residences are required. Be aware that most wheelchairs are collapsible in that they fold in the center. Footrests are detachable, as are other items of equipment on the wheelchair. Inspect a wheelchair as part of your training.

Emergency services personnel should be made aware of the construction of the school bus. Hydraulic rescue tools will not work at every place on the roof of a school bus due to the cross-member construction, for example. The International Fire Service Training Association (IFSTA) Manual, Principles of Extrication, has devoted Chapter 6 to extrication from school buses. It is an excellent resource for emergency rescue operations and should be required reading for police, fire and rescue personnel.

PRE-PLANNING

The most important element in handling a school bus emergency is proper pre-planning. This pre-planning is the responsibility of everyone who may be involved. The bus owner, driver, emergency rescue personnel, all have distinct roles but must work together to bring an accident or incident to a successful conclusion.

During an emergency, state emergency medical services (EMS) and fire departments must have practice drills to increase survivability of the pupils and to provide resources for rescue operations. The more the emergency response personnel know and understand about school bus operations, the easier it will be to handle the emergency. At the same time, the more the bus driver and/or paraprofessional understand about what the emergency response personnel will do and require, the easier it will be to work together when the emergency occurs.

The only way for everyone to successfully work together is to establish positive communications. This sharing of knowledge will enable everyone involved to react effectively and efficiently during the emergency situations.

The following items have been identified as critical. Everyone involved must be aware of and know how to handle them. This is the information that must be shared with all emergency responders to ensure proper pre-planning and response to a school bus accident or incident.

ACCIDENT/INCIDENT COMMAND

At any emergency scene someone is in charge. Every state has their own policies, laws and guidelines. The role of accident/incident commander must be established and understood by everyone prior to the emergency. It is suggested that the local officials, police, fire and emergency medical service, as well as the bus owner or operator, meet and discuss this issue. In some areas it may be clearly established and understood. The incident commander should:

1. Assume control of the scene.
2. Direct all rescue/fire operations.
3. Co-ordinate all communications.
4. Establish crowd control.
5. Establish safety zones.

Should the jurisdiction decide these duties are divided, then who handles what areas must again be decided and agreed upon prior to the emergency.

BUS FUEL SYSTEMS

Fire is a major concern at any vehicle accident. Proper fire control and safety precautions will be influenced by the type of fuel a school bus uses. The driver and emergency response personnel must be familiar with the fuel and fuel systems.

The following are considerations for pre-planning purposes:

1. Type of fuel:
 - a. Gas
 - b. Diesel
 - c. Propane
 - d. Compressed natural gas (CNG)
 - e. Methanol
2. Location of fuel tanks
3. Emergency shut-off systems
4. Special markings or features that denote a particular type fuel system.

EVACUATION PROCEDURES (Appendix F)

Local policies will determine when and how students are evacuated from a bus. School bus evacuations must be practiced with the students. Emergency response personnel must also be familiar with these policies, procedures and techniques. School buses carry a variety of students varying in size, age and special needs. The number of students a bus will carry also varies depending on these factors. Important considerations that should be shared are:

1. What determines when students will be evacuated?
2. How the evacuation is carried out, front, rear or side emergency exits; roof vents or windows used as emergency exits.
3. Distance students are removed from the bus.
4. Security of the evacuated students in the regrouping area.
5. Inclement weather considerations.
6. The role of the student in obtaining help.
7. Student accountability. (Appendix D)

Evacuation is a very difficult situation. Consideration must be given that the **safest place for the students may be on the bus.** School buses do not have seat belts. This is one less problem about which the emergency responder has to worry. However, special education buses will have special restraining devices with which the emergency responder and driver must be familiar.

RESTRAINING DEVICES (Appendix C)

The mainstreaming of special education students into the general population has generated new transportation problems. A major concern for everyone is restraining devices. Due to the varied nature and condition of the students, the types of restraining devices will vary. The driver and emergency responders must be aware of the following:

Types of devices:

1. Harnesses.
2. Wheelchair tie-downs.
3. Other special devices.

How devices operate:

1. Methods of release.

EMERGENCY RELEASE GUIDELINES

Certainly the safest way to remove a student is by releasing the device under normal operating procedures. However, during an emergency situation, time may not permit this to be done. The fastest way to release the student may be to cut the restraining device. Plans and provisions should be made for everyone involved including the driver to carry a cutting device such as a seat belt cutter for emergency use. Remember, during an emergency the

key factor is the safety of the student and we are not concerned about any damage that may occur to the restraining device. The local emergency response personnel should be trained in the types of devices used and normal and emergency means of removal.

SPECIAL MECHANICAL EQUIPMENT

Buses designed to carry students with special needs present certain distinct problems for the driver, as well as for the emergency response personnel. These buses are equipped with and carry special devices to make the handling of the special needs student easier. A general overview of restraining devices has been covered. In addition, consideration must be given to specialized mechanical devices on the buses. These include:

1. Hydraulic lifts
2. Electric lifts and controls
3. Battery-operated devices
4. Wheelchairs (Appendix H)
 - a. battery packs
 - b. oxygen bottle equipped
 - c. special restraining equipment

Buses with wheelchair capabilities normally have a lifting device to facilitate the loading and unloading of students confined to wheelchairs. These devices may operate after an accident or other emergency or may totally fail. Everyone must know how these devices operate. Emergency response personnel should be instructed in the use of these devices. Any specific override features or manual operating features should be explained. Everyone must be aware that any device that is operated by a hydraulic system poses special problems. Hydraulic lines operate under high pressures. Should one of these lines rupture or break loose, anyone may be injured by spraying fluid or a wildly whipping line. Everyone should be made aware of the type of hydraulic fluid used and any potential health or fire hazards it may possess. Also hydraulic cylinders may rupture when exposed to heat or fire. Methods of safely approaching these areas need to be considered.

Electric lifts and controls must not be overlooked. How they operate is certainly a concern. Everyone should be made aware of how they are tied into the buses electrical system, manual disconnects or specific override capabilities. If these devices have a separate battery, consideration must be given to its location and means of disconnecting should the need arise.

OTHER EQUIPMENT ON THE BUS

The school bus carrying special education pupils presents unique devices and hazards not generally known to police and fire personnel. As we move further into special needs transportation, especially of the medically fragile, we will be transporting more life support systems and other medical equipment. All of this equipment must be adaptable to tie-down devices so that it can be secured. To rescue or move these pupils, this equipment must go with the pupil. Special attention must be paid to oxygen support, ventilators, etc., as

rescuers proceed to do their job. The school bus driver and bus paraprofessional will provide valuable assistance to rescue personnel.

In most states the international blue handicap symbol sticker is not displayed on these special needs buses. Ascertain the requirements in your jurisdiction.

Some school buses will have emergency exits outlined with reflectorized materials to assist emergency responders in easy identification of those exits.

ASSISTANCE

To handle any situation or emergency, help must be obtained. This may be done by flagging down a passing motorist to call for help, using a two-way radio, or sending an authorized student to a nearby house or office to make a call. The key issue is who to call. A suggested solution would be for every driver to carry a couple of 3"x 5" cards with the following information:

1. Bus route and bus number
2. Telephone number for transportation office
3. Telephone number for fire, police, ambulance
4. Bus driver's name

This card could be given to the person sent to obtain aid with instructions of who to call and the type of assistance needed. Remember, every driver must be familiar with the local policies for obtaining aid. If a policy does not exist, one must be developed.

POLICE, FIRE, AMBULANCE AND RESCUE OPERATIONS RESPONSE

It is not the job of the bus operator to determine the type of response or the amount of equipment that police, fire, and EMS may send to an emergency involving a school bus. It is the responsibility of the school district, transportation supervisor or driver/operator to help local emergency response personnel plan for a coordinated response. Meetings with local emergency response personnel, including hospital personnel or trauma teams, should be scheduled. These meetings should be a learning experience for both groups. Emergency response personnel need information to adequately plan. The following items are helpful:

1. Number of buses that run in the district
2. Types of fuel systems used
3. Any special needs students and/or buses
4. Bus capacities
5. Evacuation procedures/policies
6. How to notify school officials during an emergency
7. Types of restraining systems used
8. Any special medical needs that may arise

The emergency response personnel should be able to provide the driver/operator with an overview of what the response will consist of in terms of equipment, a general operations plan and an identified chain of command. This plan can then be incorporated into the schools' and operators' plan.

VEHICLE EVACUATION

In the event of an actual emergency, the decision to evacuate the school bus is the initial step and one of the most important that the driver will have to make. That decision will initiate a chain of events to result in the safest possible situation for the passengers under the existing circumstances. **The decision must be made as quickly as possible and based on all the facts at hand.**

We must train ourselves and the passengers to do the following:

1. Do not panic.
2. Follow instructions.
3. Have an interest in the safety of others.
4. Know how to operate all emergency exit doors, windows and other escape hatch releases.
5. Have the passengers able to perform an evacuation with driver assistance.

Through effective training, experience with critical situations reduces the emotional impact and increases the chance of making the correct responses. Drivers and passengers can improve their responses. Through effective training we find that:

1. Thinking reduces panic.
2. Ability depends upon conditioning (training).
3. Knowledge and practice reduces surprise.
4. "What if" situations are excellent practice.
5. Repetition reduces surprise.

A vehicle should always be evacuated when, but not limited to:

1. Fire is present.
2. Potential for a fire due to:
 - a. Ruptured fuel tank or fuel line.
 - b. Electrical fire due to damaged insulation, loose connections, or electrical line near the school bus.
 - c. Hot tires, due to under-inflated tires and duals that touch each other.
 - d. Hot brakes, due to excessive use on a downgrade, causing linings to overheat and ignite lubricant.
3. The bus is situated in a dangerous position upon the roadway, such as:
 - a. On a curved portion of roadway
 - b. On railroad tracks
 - c. Close to a roadway under adverse atmospheric conditions.

In emergency situations expedient and orderly movement of people contributes to safety. This movement can be accomplished by understanding and practicing recommended evacuation procedures. Both the driver and the passengers should know what to do in the event of an emergency.

EMERGENCY EQUIPMENT ON SCHOOL BUSES

There are various types of emergency equipment required to be maintained on school buses. Check your own laws, policies or regulations to see which equipment is required in your state or district.

The National Standard for School Buses and National Standards for School Bus Operation, 1990 revised edition, set forth recommendations. They are as follows:

1. Fire extinguisher (Appendix A)
 - a. The bus shall be equipped with at least one pressurized, dry chemical fire extinguisher complete with hose, to meet Underwriters Laboratories, Inc., approval. Extinguisher must be mounted in a bracket, located in the drivers's compartment and readily accessible to the driver and passengers. A pressure gauge shall be mounted on the extinguisher and be easily read without removing the extinguisher from its mounted position.
 - b. The fire extinguisher shall be of a type approved by Underwriter Laboratories, Inc., (see Appendix A) with a minimum rating of 2A10-B:C or greater. The operating mechanism shall be sealed with a type of seal which will not interfere with the use of the fire extinguisher.
 - c. Special education buses with wheelchair lifts are required to have a second fire extinguisher mounted in the rear of the bus convenient to the wheelchair lift and exit. This extinguisher must meet all the requirements of the previously described fire extinguisher.
2. First aid kit
 - a. Each school bus shall have a removable, moisture-proof and dust-proof first aid kit mounted in an accessible place within the driver's compartment. This place should be marked to indicate its location.
 - b.

<u>Passengers</u>	<u>Units</u>
1 - 16	10 unit kit
17 - 42	16 unit kit
43 and above	24 unit kit

c. Suggested contents include:

- 2- 1" x 2 1/2 yards adhesive tape rolls
- 24- Sterile gauze pads 4" x 4"
- 100- 3/4" x 3" adhesive bandages
- 8- 2" bandage compress
- 10- 3" bandage compress
- 2- 2" x 6' sterile gauze roller bandages
- 2- non-sterile triangular bandages approximately 40" x 36" x 54" with 2 safety pins
- 3- sterile gauze pads 36" x 36"
- 3- sterile eye pads
- 1- rounded-end scissors
- 1- pair latex gloves
- 1- mouth-to-mouth airway
- burn sheet
- multi-trauma dressings

d. Body fluid clean-up kit

Each bus should have a removable and moisture proof body fluid clean-up kit. It shall be properly mounted and identified as a body fluid cleanup kit.

e. Warning devices (Appendix B)

Each school bus shall have at least three (3) reflectorized triangle road warning devices mounted in an accessible place in the driver's compartment. All reflectors shall be maintained in good working order. The driver, paraprofessional or other capable passenger should be instructed in the proper use of these warning devices. (see Appendix B)

EMERGENCY EXITS

School buses should have standards as far as emergency exits are concerned and basically they do. FMVSS 217 is in a constant state of revision as far as safety standards. The members of the Eleventh National Conference on School Transportation proffered to the National Highway Traffic Safety Administration (NHTSA) the following standard for adoption both by the NHTSA and the states:

1. Type A, B, C, and D vehicles shall be equipped with emergency exits in the following capacity vehicles:

0 - 22 passengers: one emergency exit per side and one roof hatch
23 - 65 passengers: one emergency exit per side and two roof hatches
66 and above: two emergency exits per side and two roof hatches

Each emergency exit shall comply with FMVSS 217. These emergency exits are in addition to the rear emergency door or exit.

In addition to side and rear emergency exits, doors, or windows, one or more roof hatches may be installed, provided they meet all requirements specified in FMVSS 217.

ROOF VENT/EMERGENCY ESCAPE HATCH

The potential need for roof exits is easily demonstrated by imagining a school bus accident where the bus is lying on its right side. The service door is blocked. The right side windows are on the ground. The rear emergency door provides the only feasible escape route. Of course the windshield can be broken out but in the time of emergency this route may not be chosen. Smashing out windows requires the use of an axe or using the fire extinguisher as a battering ram - no easy feat. It would also leave a broken glass littered opening through which the passengers must crawl to reach safety. If an engine fire is involved, the windshield route may be blocked. Add to this the possibility that the rear emergency exit door could be jammed due to rear-end collision or jammed due to the twisting motion of the bus rollover and we have a dilemma. The left side windows are now high in the air, too high for most pupils to reach. Does this sound far-fetched? It could happen. The front and rear windows are designed to be pushed out from the inside of the school bus.

The roof vent/emergency escape hatch provides additional passages to safety. The police, fire and rescue operations must be aware of these hatches and their potential escape network.

Oddly enough, many of these roof vent/emergency escape hatches do not come equipped with exterior release mechanisms. The outside release is an option.

These vents have rugged construction specifications and are made of high strength plastic or fiber glass. If there is not an exterior release mechanism and the passengers do not respond to unlocking the vent, it can be pried or broken through.

Instructions to passengers by rescuers are simple:

1. Push the vent open and release the safety lock.
2. Push the release handle and open the cover.

The vent opening is normally about 23 inches by 23 inches, enough for full-sized adults to exit. Vents are simple enough for children to operate. Hand pressure opens the vent. The emergency exit includes a safety latch to help prevent accidental openings, however, this could hinder rescue operations. Know that the safety latch is there when the hatch is opening to the vent position.

An additional option on these vents is an alarm switch. This activates a warning light or buzzer to warn the driver when the vent is opened to the emergency exit position.

The first responder who comes to an accident scene involving a school bus may find a great number of pupil passengers. While the configuration of the school bus tries to minimize potential injury, you face the possibility of 40 to 90 pupils aboard the school bus. The stock and trade school bus nation-wide is the 66 passenger school bus. It carries up to 66 elementary pupils assigned three to a seat, or on this same bus, it will carry up to 44 passengers in a two-to-a-seat assignment. A school bus, however, can be anything from a small van conversion up to a 90-passenger coach-type school bus.

As might be supposed, the bus may just be starting the route or be full, ready to make delivery. The injuries may be minor in nature or serious. The need to move the injured could present a challenge by virtue of the numbers involved. The school bus might contain handicapped pupils who can do little for themselves and/or be in wheelchairs. Wheelchair-bound pupils will be belted into their wheelchair and the wheelchair itself must be affixed to the floor usually by straps. Most buses carry belt-cutting knives. If fire is present, leave the wheelchair. There are a number of films and manuals that deal with the evacuation of special needs and wheelchair pupils.

OPERATION SCHEDULE

Accidents involving school buses normally are restricted as to day of week, time of day and season of the year. The norm is an operation that is Monday through Friday. It begins around 6:30 a.m. ending at 9 a.m. It starts again around 2:00 p.m. and ends around 5:00 p.m. Schools open the day after Labor Day in September and, with major holidays and a spring break excepted, run for approximately 180 days to mid-June.

A little outside the public conception of normal school opening and closing are a whole host of extra-curricular activities, field trips and alternative scheduling. A major impact not

usually considered in "regular" school times is special education or the special needs schools. Due to smaller class size and a variety of eleven handicapping conditions, these pupil's day starts earlier and in many instances runs later because they are bused further. Many times special needs pupils are in school longer than 180 days. In fact, many of the special schools run throughout the year. The school bus runs at peak traffic time on every conceivable street, road and highway, in urban and suburban areas.

School bus drivers are professionals. They must now have the Commercial Drivers License (CDL). Every state has some form of school bus driver training on top of that, which includes first aid, pupil discipline, defensive driving and school bus emergencies, to name a few subjects.

SPECIAL ASSESSMENTS

The first responder must quickly assess the needs of other persons or apparatus for this accident or incident. The involvement of a school bus automatically triggers a lot of concern and potential need for a lot of help. Topping the list of considerations for assistance are:

1. Rescue, fire and ambulance.
2. Additional police to secure the scene.
3. Another school bus to shuttle pupils.
4. Highway department.
5. School administrators.

NOTIFICATION

As soon as the scene is stable and the injured are taken care of, concern must shift to persons or agencies to be notified of the accident. School bus accidents always generate a lot of interest from the news media. To handle this aspect, the police public information office should respond because the investigator will not have the time or inclination to handle media relations until the investigation is complete.

School administrators should be notified immediately upon confirming that there is an accident, be it property damage, personal injury or a fatal accident. They will, in turn, deal with the parents of the pupils involved and other school personnel and keep that portion out of police hands.

The police officer must work hand in hand with the other respondents to the accident scene. In many jurisdictions, the callboard or central dispatch handles these preliminary notifications. Police, however, cannot assume that the dispatcher will make notification. Assistance with the pupils, even if they are not injured, will be needed immediately. The school bus driver is the first line of support in this area of concern. Police should rely upon the professional school bus driver who has received some training in first aid, school bus evacuation and pupil management.

INVESTIGATION

It is not the purpose of this manual to tell the police how to investigate an accident or incident involving a school bus.

Interviews and evidence are handled the same as any accident or incident. The only potential difference is in the magnitude of the situation. Many more people are involved at the scene and in the notification. School authorities will respond to the scene to assist. Please accept the offer of assistance as they too are professionals and have dealt with these matters before. School authorities are not there to take over the police investigation. The pupils' interests are paramount in their minds as well as in those of the police rescue personnel.

As part of the police investigation it may be helpful to know that the school bus drivers are professional drivers. Not only have they obtained the Commercial Drivers Licenses (CDL), effective April 1, 1992, they will also have gone through extensive driver training on the school bus itself. Most states also demand inservice or yearly follow-up driver training as well.

APPENDIX A

CLASSIFICATION OF FIRES

Accepted standard practices separate fires into four general classes as follows:

1. Class A. Fires of ordinary combustible materials where the "quenching" and "cooling" effects of quantities of water or of solutions containing large quantities of water are of first importance. Examples are fires in wood, textile fabric, rubbish, etc., or any material that leaves an ash.
2. Class B. Fires in combustible liquids, petroleum products, etc., where the blanketing or "smothering" effect of the extinguishing agent is of first importance. Examples are gas, oil, and grease fires. These substances may be stored in tanks, containers, or open vats; or they may be running freely on the ground.
3. Class C. Fires involving electrical equipment where the use of a "nonconductor" extinguishing agent is of first importance. Examples are fires involving electrical switchboards, motors, or wiring.
4. Class D. Fires involving flammable metals (magnesium).

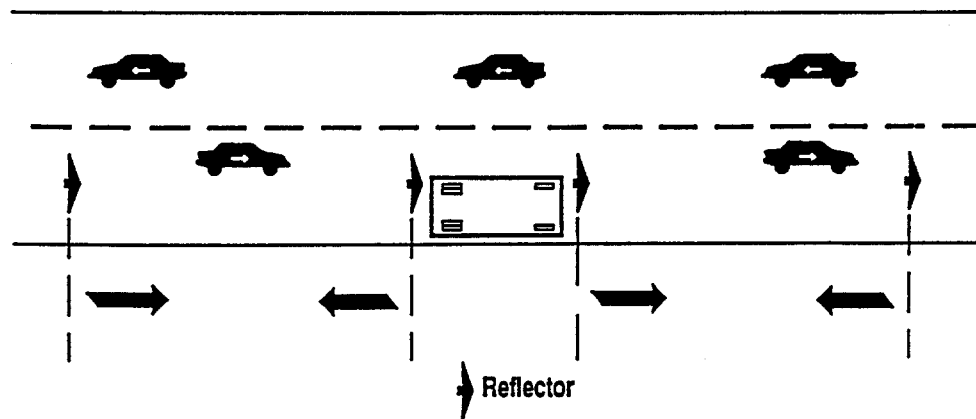
Vehicles should be equipped with extinguisher(s) to provide the minimum rating required; 2A10-B:C means large enough to extinguish a fire of B:C class covering ten square feet of surface. (Standards indicated by National Fire Protection Association)

The most commonly used fire extinguisher is the dry chemical type.

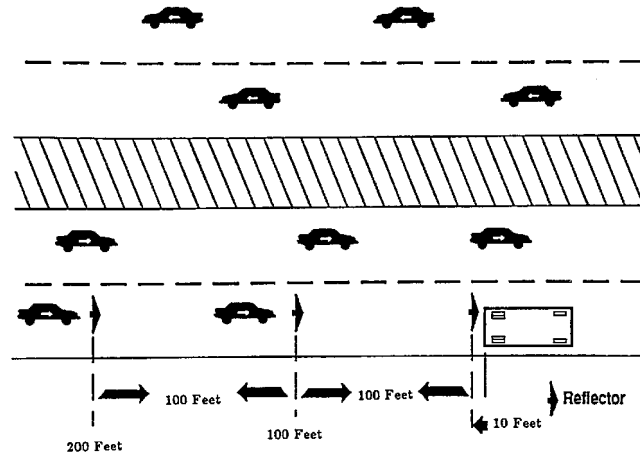
APPENDIX B

RED EMERGENCY REFLECTORS

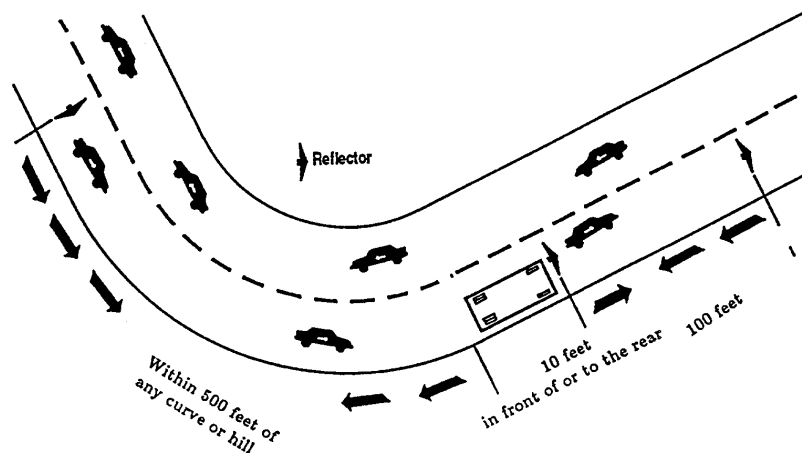
1. Every vehicle, if operated during darkness, would be subject to the provisions of your state's motor vehicle code. Every school bus may be required to be equipped with at least three red emergency reflectors. All reflectors shall be maintained in good working conditions.
2. When any such vehicle is disabled on the roadway during darkness, reflectors should be immediately placed as follows:
 - a. One at the traffic side of the disabled vehicle, not more than 10 feet to the front or rear thereof.
 - b. One at a distance of approximately 100 feet to the rear of the disabled vehicle, in the center of the traffic lane occupied by such vehicle.
 - c. One at a distance of approximately 100 feet to the front of the disabled vehicle, in the center of the traffic lane occupied by such vehicle.



- d. If a disablement of any such vehicle occurs within 500 feet of a curve, crest of a hill, or other obstruction to view, the driver shall so place the reflectors in that direction as to afford ample warning to other users of the highway, but in no case less than 100 nor more than 500 feet from the disabled vehicle.



- e. If disablement of the vehicle occurs upon any roadway of a divided or one-way highway, the driver shall place one reflector at a distance of approximately 200 feet and one reflector at a distance of approximately 100 feet to the rear of the vehicle in the center of the lane occupied by the stopped vehicle, and one reflector to the traffic side of the vehicle, not more than 10 feet to the rear of the vehicle.



3. When any such vehicle is disabled or parked off the roadway but is within 10 feet thereof during darkness, the driver shall immediately place warning reflectors as follows:
 - a. One at a distance of approximately 200 feet to the rear.
 - b. One at a distance of approximately 100 feet to the rear.
 - c. One to the traffic side of the vehicle, not more than 10 feet to the rear of the vehicle.
 - d. The reflectors shall, if possible, be placed between the edge of the roadway and the vehicle, but in no event less than two feet to the left of the widest portion of the vehicle or load thereon.

APPENDIX C

WHEELCHAIR INSPECTION PROCEDURE

IS THE WHEELCHAIR SAFE TO TRANSPORT?

1. FRAME

The following items should pertain to the wheelchair frame:

- a. It must be maintained by the owner.
- b. Should not have any major indentations, cracks, depressions or abnormal signs of wear or strain.
- c. Should be fastened together to meet manufacturers specifications.

2. BRAKES

All wheelchairs transported should have brakes. The following items pertain to the brakes:

- a. Properly maintained by the owner of the chair.
- b. Electric wheelchairs should be capable of being locked in gear or have an independent locking system.
- c. Maintained to hold the chair in place while on the lift and on board the bus.

3. RESTRAINING BELTS

All wheelchairs transported should have restraining belts. The following pertain to the restraining belts:

- a. Provided and maintained by the owner of the chair.
- b. Be of the webbed type.
- c. Belt buckles have a manual release.
- d. Fastened to the frame of the chair. (Wrapping the belt around the student and the chair is not acceptable.).

4. Batteries

The following pertain to batteries attached to wheelchairs:

- a. Maintained by the owner of the chair.
- b. Leak resistant and spill resistant container.
- c. Secured to the frame by a properly maintained battery held down in such a manner as to prevent separation in an accident. This hold down of battery should be fastened to the frame to prevent no more than 1/4 inch movement.

5. FOOTREST

Wheelchairs transported should be equipped with footrests whenever applicable. These footrests must be:

- a. Maintained by the owner of the chair.
- b. Adjusted so the students feet are able to rest on the platform.
- c. Secured firmly to the frame.

6. WHEELS

Wheelchairs transported will have wheels that should be:

- a. Maintained by the owner of the chair.
- b. Secured to the chair with no more than 1/6 inch wobble.
- c. Spoked wheels shall have all spokes. Spokes should be tightened and not broken to ensure maximum stability.

7. UPHOLSTERY

All wheelchairs transported are to be maintained by the owner to ensure that the seat and back portion of the upholstery are in good condition (no tears, sharp edges, nor excessively worn.)

8. SPECIALIZED WHEELCHAIRS

Mulholland type chairs are to have at least four supports, one being connected from each corner of the seat of the chair to the base of the framework.

9. HOMEMADE WHEELCHAIRS

Homemade wheelchairs should not be transported until approved by a major wheelchair manufacturer or licensed physical or occupational therapist. It is required that a letter from the company or therapist (on company letterhead) be submitted to the carrier to assure that the homemade wheelchair has been inspected. This letter should state that the chair does meet manufacturers' safety requirements and is safe to transport.

APPENDIX D
SPECIAL EDUCATION SEATING CHART

DRIVER _____ DATE _____

ROUTE NO. _____ BUS NO. _____

DRIVER'S SEAT

- | | | |
|-----------|-----------|-----------|
| 1. _____ | 2. _____ | 3. _____ |
| 4. _____ | 5. _____ | 6. _____ |
| 7. _____ | 8. _____ | 9. _____ |
| 10. _____ | 11. _____ | 12. _____ |
| 13. _____ | 14. _____ | 15. _____ |
| 16. _____ | 17. _____ | 18. _____ |
| 19. _____ | 20. _____ | 21. _____ |
| 22. _____ | 23. _____ | 24. _____ |
| 25. _____ | 26. _____ | 27. _____ |
| 28. _____ | 29. _____ | 30. _____ |

SEATING CHART SHOULD CONTAIN THE FOLLOWING:

- a. Assignment of students to specific seats, those who can help by those who need help; buddy system
- b. Location of:
 - Drivers seat
 - Passenger seats (numbered)
 - Wheelchair stations
 - All exits
 - Wheelchair lift
 - Fire extinguisher
 - First aid kit
 - Reflectors
- c. Student identification
 - Helpers
 - Runners
 - Those who will panic
 - Those who will need help
 - By disability, communication, mobility (make sure a medical card reflects the mobility problem)

SPECIAL EVACUATION PLAN

Direct the students to move at least 100 feet from the bus. Always regroup upwind from any fire. To assist in control, have the students hold hands, sit down in a circle, or both. Keep students occupied until help arrives.

APPENDIX E

EMERGENCY FACILITIES

DRIVER _____ ROUTE NO. _____ BUS NO. _____
=====

TYPE OF FACILITY _____

ADDRESS _____ CITY _____

NEAREST CROSS STREET _____

=====

TYPE OF FACILITY _____

ADDRESS _____ CITY _____

NEAREST CROSS STREET _____

=====

TYPE OF FACILITY _____

ADDRESS _____ CITY _____

NEAREST CROSS STREET _____

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TYPE OF FACILITY _____

ADDRESS _____ CITY _____

NEAREST CROSS STREET _____

=====

TYPE OF FACILITY _____

ADDRESS _____ CITY _____

NEAREST CROSS STREET _____

=====

EMERGENCY PHONE NUMBER 911

APPENDIX F

TECHNIQUES FOR A BUS EVACUATION SIMULATION PRESENTATION

INTRODUCTION

School districts in all states are responsible for providing programs on safe riding practices and bus evacuation to students.

Every school year, each pupil who is transported in a school bus shall receive appropriate classroom instruction in safe riding practices and shall participate in an emergency bus evacuation drill.

We all realize that a school bus is the safest means of transportation available. School transportation personnel have earned this safety record because of a sincere regard for the safety of the passengers. In order to ensure this record is maintained, school districts provide this class to the school bus driver, so they may best understand and implement emergency bus evacuation procedures.

PURPOSE

The purpose of conducting an evacuation drill simulation is to familiarize both the driver and the passengers with the procedure to follow in the event of an emergency. On only a few occasions have school buses had to be evacuated, however, if it becomes necessary to evacuate, the bus each driver and the passengers must know the procedures.

Some districts contract for special buses and driver instructors to conduct the training of students in safe riding practices and bus evacuation. The team visits every school beginning with the first session. In addition, school bus drivers conduct a simulated bus evacuation drill on each field trip driven. This procedure is to prepare the driver.

The bus driver will be responsible, in the final analysis, for the success or failure for implementing the bus evacuation program.

DRIVER RESPONSIBILITY

Primarily, the school bus driver must know the subject and be able to get the message and the commands across to the passengers. This will come with some practice. Each driver should have a chance to conduct a simulated drill. It will be much easier when working with the passengers.

Secondly, a driver must know the equipment and make sure it is in good working order. For example, don't wait until the passengers are on board to find out the emergency door latch is inoperative. Make sure the fire extinguisher is properly charged and sealed, and the first aid kit has the proper units.

All school buses must provide at least two methods or routes of escape. With proper training, each passenger will know each available route of escape and how to operate each emergency exit.

As a driver be a leader, positive and sure of yourself. Appoint the ride-evacuation helpers with an eye towards responsibility and good character.

GAINING RAPPORT AND TEACHING CONTROL

The majority of the passengers will be wondering why they have to worry about school bus safety. Especially children who do not ride a bus daily, but who do participate in field trips occasionally.

This can be accomplished by using some basic teaching techniques.

1. Be friendly and smile.
2. Speak in a clear voice that all can hear.
3. Use your eyes. Eye contact is essential for two reasons:
 - a. Listeners feel more personal interest.
 - b. You can see if you have their attention.
4. Listen to the students for suggestions and complaints.
5. Look for and commend good qualities and actions.
6. Stick to the subject. If a question or comment is not pertinent, answer, "We will cover that later" or "I will talk to you later".
7. Know the subject. "School bus emergency evacuation."
8. Be enthusiastic throughout the presentation.
9. Use maturity and take advantage of the education and training to exercise leadership and control.
10. "Ascertain unerringly that the technical terminology is being used and is comprehensible and corresponds to the cultural period in human development in attendance at the lecture." Any questions? Make sure to speak to the age level of the audience.
11. Make the commands in a positive manner and be sure that they are capable of being carried out.
12. Explain the reason for the commands before having them carried out.

Let the students know that the school bus is really a good place to be and that school bus emergency evacuation is just as essential to education and personal well-being as the safety rules learned and used at the beach or swimming pool. Remember, you are helping them to grow up and the children really need to know you care about them.

BUS PREPARATION PRIOR TO THE PRESENTATION

The school bus driver is responsible for a daily bus checkout that is accomplished prior to operation. It not only is essential for the students' safety and the motoring public's safety,

but is also essential for the appearance presented to the passengers. The condition, comfort and appearance of the bus is a direct reflection on the driver and it determines the image of professionalism the driver must display. Therefore, see to it that the inside of the bus meets the standards expected by the school district.

1. The inside of the bus, walls, ceilings, floor and seats will be clean and not littered.
2. The seats and handrails will be securely fastened.
3. The upholstery will be in good repair.
4. The windows will be in good operating condition with no broken glass.
5. The emergency doors will be in good working condition and capable of being opened completely past the half-way point.
6. Emergency door handles should be painted red for easy identification.

The school bus driver who takes pride in the appearance of the vehicle will find the passengers will take pride also.

SAFE RIDING PRACTICES RELATING TO EVACUATION

A program of instruction to students on safe riding practices is necessary because of accidents caused by those students who do not understand their responsibilities as bus passengers. The following rules for safe school bus riding and general behavior for bus passengers apply also to emergency bus evacuation and must be thoroughly explained to every student:

1. Remain seated and quiet until the bus is completely stopped. Do not change seats unless instructed to do so by the bus driver, a paraprofessional or a teacher.
2. Always face forward in the seat.
3. Keep hands, feet and head inside the bus at all times. (If windows are allowed only half-way open, this will help discourage the problem).
4. Be courteous to others and pay attention to the bus driver, teacher, paraprofessional and evacuation helpers.
5. While moving to the appropriate exit, do not push or shove.
6. While leaving the bus, use the handrails or the evacuation helper's hands. Be alert for traffic and/or pedestrians.
7. Move to a safe place away from the school bus and remain there with the group. Re-grouping should be approximately 100 feet or 40 to 50 paces from the bus.
8. Be aware of the "danger zones" - the areas around the bus that are "blind" spots to the driver.
9. Observe safety procedures while crossing the street or proceeding to the regrouping area.
10. Do not talk to or accept rides from anyone.

Elementary grade levels should be instructed in the most thorough manner during assemblies concerning safe riding practices. After all, these children will be riding the school bus for many years and all aspects of the subject must be stressed.

Stress to the upper grade levels the responsibilities of school bus riders with regard to student behavior. The objective is student cooperation. This cooperation will alleviate distractions and subsequently reduce the number of school bus accidents.

DANGER ZONES

The "Danger Zones" are the areas to the front, sides and rear of the school bus that are not in direct eye contact of the bus driver.

Children who, for whatever reason, come into these danger areas place themselves in jeopardy of serious injury or death. It is essential that the four "Danger Zones" (front, sides and rear), be fully explained.

If necessary, demonstrate by having one of the students go outside to the front of the bus. Have the student stoop to pick up a paper or book. Then have him/her stand. The students will get the picture very clearly. This can be demonstrated also by having a student drop a paper out of a side window. The person picking up the paper could very easily be placed in front of the rear duals.

See to it that all of students, teachers, and paraprofessional are completely familiar with the "Danger Zones" before continuing.

STUDENT RESPONSIBILITY DURING EVACUATION

Every rider should know the following:

1. Emergency doors
 - a. Location
 - b. Operation
 - c. Count the seats to the exit
2. Fire extinguisher
 - a. Location
 - b. Operation
 - c. How to remove from mounting bracket
3. First aid kit
 - a. Location
 - b. Types of units in the kit

NOTE: All capable riders should be familiar with the contents. Evacuation helpers may be incapacitated during an emergency.

4. Exiting the bus
 - a. Front door
 - (1.) Use handrails provided.
 - (2.) Do not push.
 - (3.) Watch for traffic and/or pedestrians.
 - B. Floor level exits
 - (1.) Stoop down as low as possible
 - (2.) Place hands on top of evacuation helpers hands. Do not grasp.
 - (3.) Drop to ground.
5. Evacuation helpers
 - a. All passengers should know who is assigned.
 - b. Have assigned seats.
 - c. Know the following:
 - (1.) Seats assigned to each exit
 - (2.) Order of evacuation departure
 - (3.) How to assist others from the bus
 - (4.) How to exit themselves
 - (5.) Area to send evacuees to regroup
 - (6.) How to control the group when rejoining the other passengers.

NOTE: The passengers should evacuate to an area at least 100 feet from the vehicle. It will be a safe area out of traffic and away from any other potential danger. It should be up-wind from any fire. Passengers shall gather in a group and remain there quietly until everyone joins them.

6. The last two students out of the bus should obtain the first aid kit and the fire extinguisher.

SUMMARY

Accidents do happen. When they do it is too late to begin teaching an emergency procedure. The instruction given to students on emergency evacuation procedures may help prevent them from being injured or killed.

The purpose of the emergency evacuation simulation presentation is re-education. The students' reactions will be quicker and more exact with the knowledge, but remember it is up to the presenter to make it interesting and to be sincere during the presentation.

VISUAL AIDS

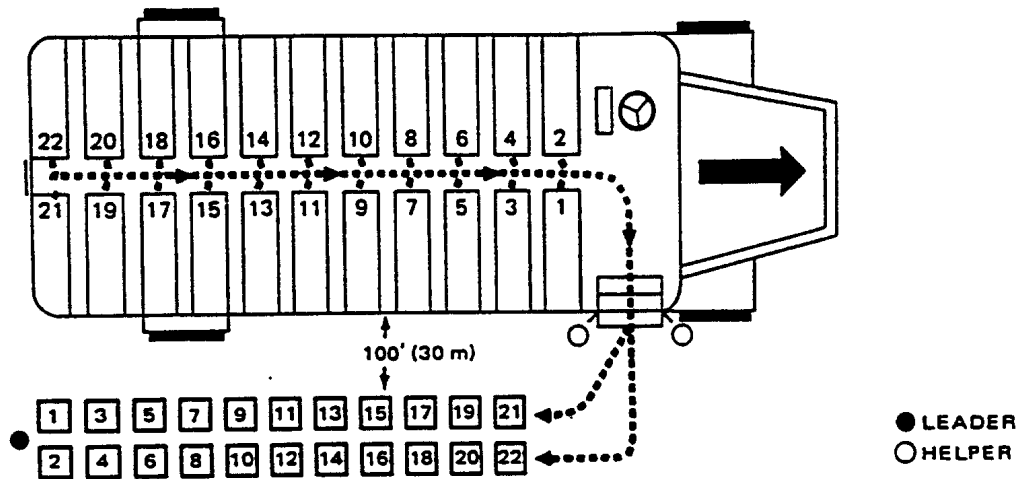
The following drills are suggested and the appropriate one chosen for use during presentations and actual emergencies.

Front Door Evacuation

Driver's instructions:

1. Stop the bus in a preselected location on the school grounds.
2. Shut off the engine, and set the parking brake.
3. Place the transmission in first or reverse gear.
4. Remove the ignition key.
5. Stand, open the front door, face the children, and get their attention.
6. Give the command: "Front door emergency evacuation drill - remain seated."
7. Direct the two helpers to their places beside the front door.
8. Stand between the first occupied seats, facing the front of the bus.
9. Starting with the right-hand seat, ask the leader to lead all pupils 100 feet or 40 paces from the bus, and instruct the other occupants of the right seat to follow.
WARN ALL PUPILS: "Walk. Do not run. Use the hand rails."
10. Hold your hand before the occupants of the left-hand seat in a restraining gesture.
11. When the pupils in the right-hand seat have moved forward enough to clear the aisle, dismiss the occupants of the left-hand seat.
12. Continue the evacuation procedure as described, right and left seats alternately, until the bus is empty.
13. When the last seat is empty, walk to the front of the bus, and check to ensure that everyone is out.

Front Door Evacuation



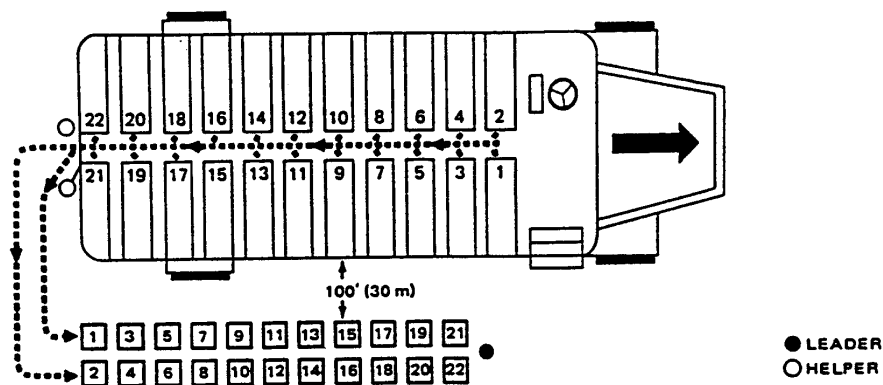
REAR FLOOR-LEVEL DOOR EVACUATION

Driver's Instructions

1. Stop the bus in a preselected location on the school ground away from traffic.
Note: Be sure that ample adult supervision is at this location before drills are held.
2. Shut off the engine and set the parking brake.
3. Place the transmission in first or reverse gear.
4. Remove the ignition key.
5. See that the gym mat (4 x 6 feet) is placed on the ground in the center of the rear emergency door.
6. Stand, face the children, and get their attention.
7. Give the command: "Rear door emergency evacuation drill - remain seated."
8. Walk to the rear of the bus, and face the door.
9. Use the left hand to restrain occupants of the right rear seat.
10. Ask the helper to open the emergency door, jump out, and take a position.
(The ideal method of exit is to sit on the floor with feet outside and ease out onto the ground)
11. Have the second helper jump out and take a position.
12. Have the leader stand in the doorway to lead the rest of the pupils off the bus to a position 100 feet or 40 paces from the bus.
13. Before the leader jumps, turn around, face the front of the bus, and explain in what rotation (starting with the right rear seat, then left, right and so on) the pupils are to leave their seats, reminding them to remain seated until it is their turn to move.

14. Face the doorway and move between the left rear seats to clear the aisle. Command the leader to assume a semi squat position, reach out with both hands, hop out, and go to a position 100 feet or 40 paces away from the bus.
15. Tell the pupils seated in the right rear seat to leave the bus, then call for the pupils in the next left seat to leave; then the next right seat, until the bus is empty.
16. Keep control at the rear door to prevent any shoving or pushing. Make sure each pupil has plenty of room to assume a semi squat position making sure they duck their head before jumping.
17. When the last pupil has exited, walk to the front of the bus and check to ensure that everyone is out.
18. Go out the front door and join the waiting pupils.

Rear Floor-Level Door Evacuation

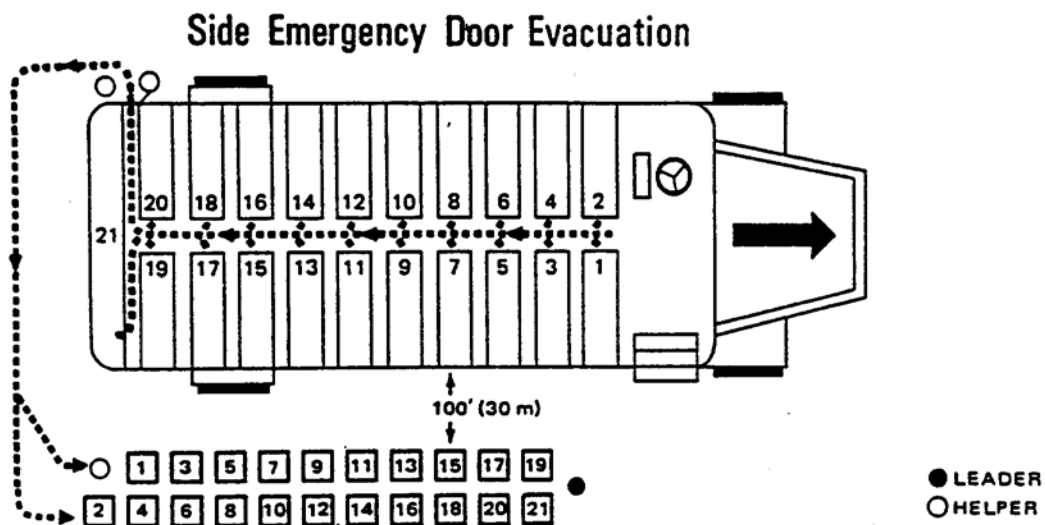


SIDE EMERGENCY DOOR EVACUATION

Driver's Instructions:

1. Stop the bus in the preselected location on the school grounds, away from traffic. Note: Be sure ample adult supervision is at the location before the drill is held.
2. Shut off the engine and set the parking brake.
3. Place the transmission in first or reverse gear.
4. Remove the ignition key.
5. See that the gym mat (4 x 6 feet) is placed on the ground in the center of the rear emergency door.
6. Stand, face the children, and get their attention.
7. Give the command: "Side emergency door evacuation drill - remain seated."

8. Walk to the emergency door.
9. Ask helper number one to open the emergency door, and jump out to take a position.
10. Ask helper number two to jump out and take a position.
11. Ask the leader to jump out and lead the other pupils 100 feet or 40 paces from the bus.
12. Face the rear of the bus and ask pupils seated in the first right seat to leave, then left, then right, until all pupils have exited.
13. Face the front of the bus, and ask pupils in the first left seat forward of the emergency door to leave; then right, then left until the bus is empty.
14. See that all pupils remain seated until it is their turn to leave. Stay near the emergency door to space pupils so that each pupil has cleared the mat before allowing the next pupil to jump.
15. Check all seats to see that everyone is out, and leave through the emergency door in the same manner as the pupils and join the waiting pupils in the regrouping area.

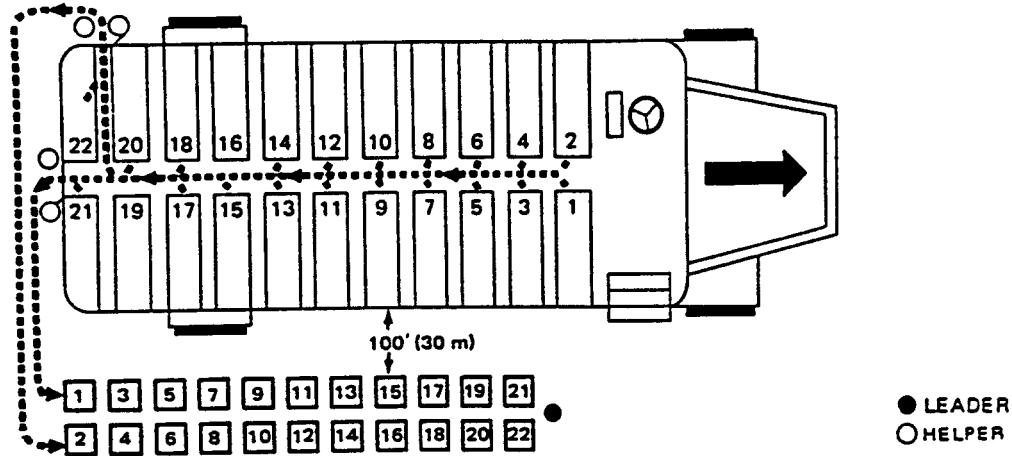


LEFT AND REAR FLOOR-LEVEL DOORS EVACUATION

Driver's instruction:

1. Stop the bus in the preselected location on the school grounds, away from traffic. Note: Be sure ample adult supervision is at the location before the drill is held.
2. Shut off the engine and set the parking brake.
3. Place the transmission in first or reverse gear.
4. Remove the ignition key.
5. See that the gym mat (4 x 6 feet) is placed on the ground in the center of the rear and side emergency doors.
6. Stand, face the children, and get their attention.
7. Give the command: "Left and rear door evacuation drill - remain seated."
8. Walk to the rear row of seats and face the door.
9. Ask one helper to open the rear door, and jump out to take a position. Ask the second helper to take a position.
10. Turn, face the left-side emergency door, and ask the third helper to open the emergency door, jump out and take a position. Ask the fourth helper to jump out and take a position.
11. Ask the leader to take a position in the rear doorway.
12. Face the front of the bus and explain to the children what order they are to leave their seats, reminding them to remain seated until it is their turn to move.
13. Start the evacuation with the right rear seat, then left rear seat, then right, then left, until the bus is empty. All pupils seated on the right side of the bus leave through the rear door; all pupils seated on the left leave through the left rear door.
14. Ask the leader to assume a semi squat position, reach out and place both hands on top of the helper's hands, hop out, and go to a position 100 feet or 40 paced away from the bus.
15. Ask the pupils in the first right rear seat to leave through the rear door. Ask the pupils in the first left rear seat to leave through left rear door, and so on.
16. Stand in a position to control both doors to prevent pushing and shoving, allowing ample room for each pupil to assume a semi squat position before jumping.
17. This can be done by having the first pupil go out the rear door and the next pupil go out the left rear door - then rear, then left, spaced to allow each pupil who has jumped ample time to clear the mats before the next person jumps.
18. Walk to the front of the bus, and check to ensure that everyone is out. Leave through the front door, and join the waiting pupils. The driver should evaluate the evacuation performance, point out improvements needed and commend the pupils on activities well done.

Left and Rear Floor-Level Doors Evacuation



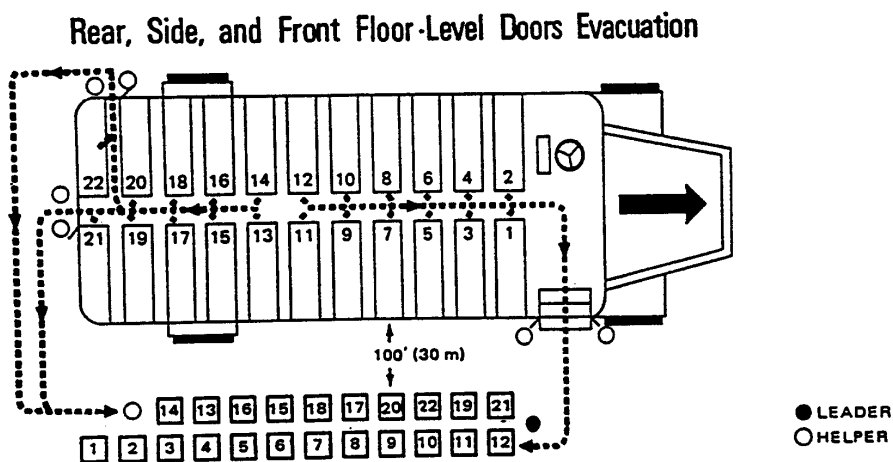
REAR, SIDE, AND FRONT FLOOR-LEVEL DOORS EVACUATION

Drivers instructions:

1. Stop the bus in the preselected location on the school grounds, away from traffic. Note: Be sure ample adult supervision is at the location before the drill is held.
2. Shut off the engine and apply the parking brake.
3. Place the transmission in first or reverse gear.
4. Remove the ignition key.
5. See that the gym mat (4 x 6 feet) is placed on the ground in the center of the rear emergency door.
6. Stand, face the children, and get their attention. Open the front door.
7. Give the command: "Rear, side and front emergency door evacuation drill - remain seated."
8. Ask the front first and second helpers to take their positions outside the front entrance door.
9. Walk to the rear door and ask the third helper to open the rear emergency door and jump out to take a position. Ask the fourth helper to jump out and take a position.
10. Face the left rear emergency door. Ask helper five to open the door and jump out to take a position. Ask helper six to jump out and take a position.
11. Walk to the front of the bus. Ask the leader to leave through the front door and take a position 100 feet or 40 paces from the bus. Start with the left front seat and ask those pupils to leave through the front door, then seat number three, then four, then five. Back down the aisle, releasing pupils from seats on alternate sides of the bus, until the center of the bus has been reached. Ask the

rest of the students to remain seated. Walk back to the left side emergency door. Starting at the rear of the bus, ask all remaining pupils seated on the left side to leave by the left side emergency door. Stand at the left door to control the pupils and space their jumps so that each pupil has cleared the mat before allowing the next pupil to jump.

12. After the pupils on the left side of the bus have left the bus, turn to the rear door and ask the pupil closest to the rear door to leave. All remaining pupils are to leave through the rear emergency door. Again, see that each pupil has cleared the mat before allowing the next pupil to jump. Walk to the front and check to ensure that everyone has left the bus. Exit through the front door and go to the regrouping area.



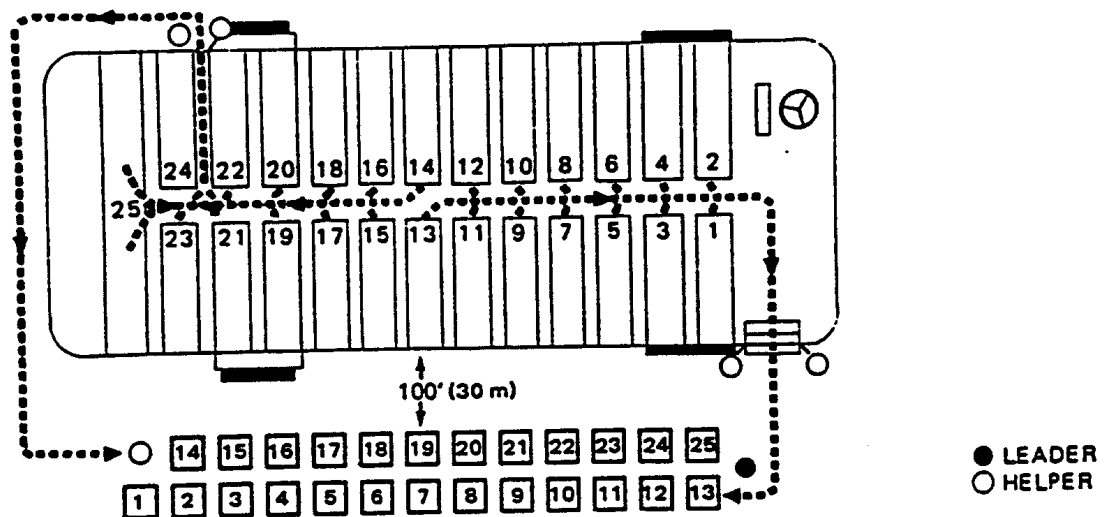
FRONT AND SIDE FLOOR-LEVEL DOORS EVACUATION

Driver's instructions:

1. Stop the bus in the preselected location on the school grounds, away from traffic. Note: Be sure ample adult supervision is at the location before the drill is held.
2. Shut off the engine, and secure the parking brake.
3. Place the transmission in first or reverse gear.
4. Remove the ignition key.
5. See that the gym mat (4 x 6 feet) is placed on the ground in the center of the rear emergency door.
6. Stand, face the children, and get their attention.
7. Give the command: "Front and side emergency door evacuation drill - remain seated."

8. Stand between the first two seats and ask helper number one to open the front door (using emergency release, if so equipped). Ask helpers one and two to take their positions outside, one on each side of the front door.
9. Ask the leader to take a position 100 feet or 40 paces from the bus.
10. Release the pupils in the left front seat. Step back and release the pupils in the next right hand seat, then left, and so on, until the center is reached.
11. Ask the rest of the pupils to remain seated.
12. Walk back to the left emergency door. Ask helper number three to open the emergency door. Jump to the ground and take a position.
13. Ask helper number four to jump out and take a position.
14. Ask pupils seated behind the emergency door to leave first, in proper rotation - right, left, right.
15. As soon as the rear seats are empty, ask pupils seated forward of the emergency door to leave, starting with the right seat, then left, and so on, until all pupils are out. Be sure all pupils stay seated until their turn to leave. Stay near the side emergency door to ensure that each pupil clears the mat before allowing the next pupil to jump.
16. Check each seat to ensure that everyone is out and leave by the front door to join the pupils in the regrouping area.

Front and Side Floor-Level Doors Evacuation



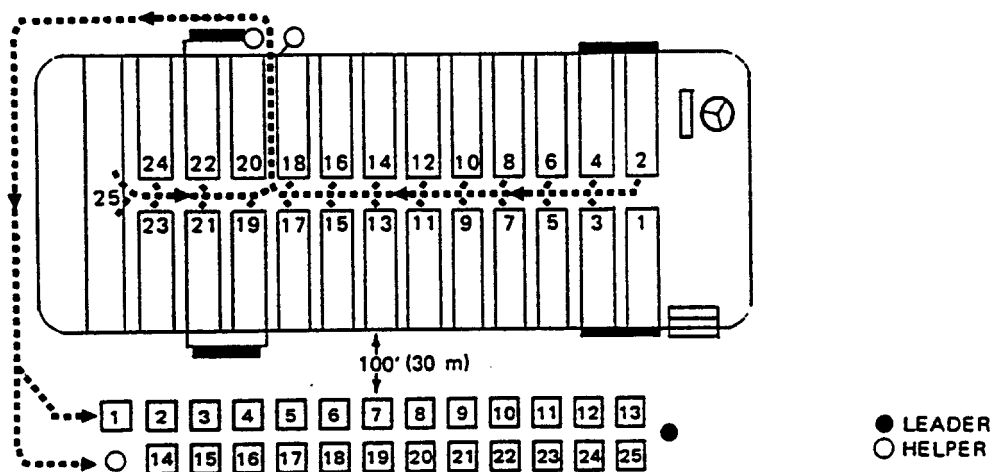
REAR FLOOR-LEVEL EMERGENCY DOOR EVACUATION

Driver's instructions:

1. Stop the bus in the preselected location on the school grounds, away from traffic. Note: Be sure ample adult supervision is at the location before the drill is held.
2. Shut off the engine, and secure the parking brake.
3. Place the transmission in first or reverse gear.
4. Remove the ignition key.
5. See that the gym mat (4 x 6 feet) is placed on the ground in the center of the rear emergency door.
6. Stand, face the children, and get their attention.
7. Give the command: "Rear door emergency evacuation drill - remain seated."
8. Walk to the rear seat and face the front of the bus.
9. Ask one helper to open the emergency door, jump out, and take a position.
10. Have the second helper jump out and take a position. He/she becomes the pupil leader.
11. Ask the pupil leader to stand at the emergency door.

12. Explain to the pupils in what order they are to leave their seats (starting with the right rear or divan seat, the left, then right, and so on), until the bus is empty. Remind pupils to remain seated until it is their turn to move.
13. Ask the pupil leader to assume a semi squat position, reach out with both hands and go to a position 100 feet or 40 paces away from the bus. Pupils are told to exit and go to the pupil leader.
14. Remain near the emergency door to control pupils leaving the bus and to prevent shoving or pushing. See that each pupil assumes a semi squat position before jumping.
15. Make sure that each pupil who has jumped clears the mat on the ground before allowing the next pupil to jump.
16. After the last pupil leaves the bus, walk to the front of the bus and check to ensure that everyone is out.
17. Leave the bus by the front door and join the pupils in regrouping area.

Left Rear Floor-Level Emergency Door Evacuation



SUMMARY

Accidents do happen. When they do, it is too late to begin teaching an emergency procedure. The main purpose is the instruction of passengers at all age levels on their responsibility as vehicle passengers in knowing about all escape routes, where each is located, how each one works, and the proper procedure for leaving a vehicle in an emergency.

APPENDIX G

DRIVER PRESENTATION (SUGGESTED)

1. Introduction - meet students and teachers outside of the bus. (Use the public address system, if necessary.)
 - A. Have students form lines facing the bus - outside of the danger zones.
 - B. Set the standards:
 - (1.) All eyes looking at you.
 - (2.) No talking.
 - (3.) Follow directions.
 - (4.) All questions will be answered at the end of the presentation.No "what if" questions.

NOTE: Make sure these standards are set as they will determine how successful the presentation will be.

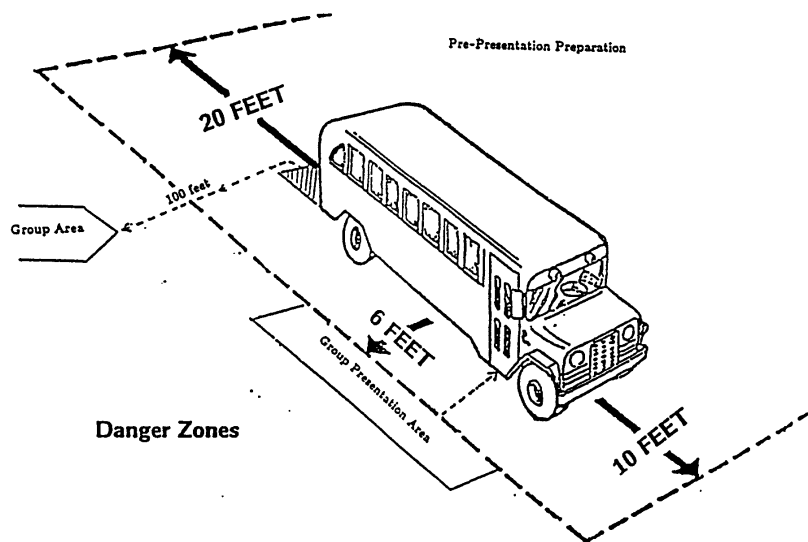
- C. Explain what and why you are reviewing the bus evacuation drill program.
 - (1.) See what they remember of previous drills.
 - (2.) Introduce new material.
 - (3.) Student safety.
 - (4.) State law requires drills be performed yearly.
 - (5.) The bus driver - sell professionalism.
 - a. Training required
 - b. Subjects covered

Simplify for K-3 students

2. Bus riding rules and bus evacuation drill
 - A. Danger zones
 - (1.) Explain briefly the location of zones.
 - a. Why should you stay out of the zones? (Have the students answer).
 - (2.) Point out the placement of cones:
 - a. Front 10 feet
 - b. Sides 6 feet
 - c. Rear 20 feet
 - (3.) Explain - driver cannot see anyone in these zones. (Can you see the drivers seat from this zone?)
 - (4.) If you enter the zone to pick up a paper or book, who do you notify first? (driver)
 - B. How many students practice safe driving habits? (hands)
 - (1.) Discuss
 - C. Where are the emergency exits on the bus?
 - (1.) Front door
 - (2.) Side door
 - (3.) Rear door
 - (4.) Windows

- (5.) Roof vents
- D. Evacuation introduction - emphasis (Choose children to help demonstrate exit from floor-level doors)
 - (1.) Legs bent - stoop low
 - (2.) Look forward and note where landing
 - (3.) Helper's hands out in front
 - a. Helper's outside hand to jumper's hand
 - b. Helper's inside hand to jumper's elbow
- 3. Entering the bus
 - A. Walk, don't run. Explain entry procedure.
 - B. Use hand rails. Show location.
 - C. Have students form line and enter directly onto bus. Teacher should enter first to seat students. One teacher at rear of bus for control assistance. Save two seats at rear door for helpers. Save one seat for the regrouping leader. All others may be 2 or 3 to a seat.
 - D. Presenter is last to enter. Stand by front steps to assist, if necessary.
- 4. Interior bus presentation
 - A. Get students' attention.
 - B. Students should stay seated.
 - C. Discuss safety and bus operation equipment:
 - (1.) Fire extinguisher
 - (2.) First aid kit
 - (3.) Parking brake
 - (4.) Ignition
 - (5.) Two-way radio
 - (6.) Reflectors
 - D. Arms, legs, out of aisle.
 - E. Ask permission to open windows
 - (1.) Arms, hands, head, legs inside bus
 - F. Talking must stop at railroad crossings
 - G. Door operations
 - H. Questions
- 5. Drill introduction
 - A. Release those who are excused from jumping to witness from left rear side of bus.
 - B. Review:
 - (1.) Jump position
 - (2.) Do not push or shove
 - (3.) Review instructions to helpers and leader.

6. Actual drill
 - A. Have first helper open emergency door, jump out, take a position and hold the door.
 - B. Have helper two jump out and take a position.
 - C. Have leader assume a semisquat position, take helper's hands, jump out and go the regrouping area.
 - D. Direct students from seats right side first, then left, then right, and so on until the bus is empty.
 - E. Ensure bus is empty. Exit front door and join the students in the regrouping area. Thank them for their cooperation.
7. Pre-presentation preparation of school bus (diagram)
 - A. Equipment required:
 - Seven (7) marker cones
 - One (1) gym pad for jump demonstration



APPENDIX H

BRIEF DESCRIPTION OF SPECIAL EDUCATION STUDENTS **SUGGESTED EVACUATION PROCEDURES**

EDUCABLE RETARDED (ER) - Students generally function at the 2nd to 4th grade level in academic achievement and are generally less socially mature and less able to work with the abstract than students of average or above average ability.

TRAINABLE MENTALLY RETARDED (TMR) - Students are generally 4 to 8 years retarded in their intellectual development with a functional level more severely impaired than ER students.

CEREBRAL PALSID/ORTHOPEDICALLY HANDICAPPED (CP/OH) - Students generally possess handicapping conditions because of severe physical limitations caused by cerebral palsy, muscular dystrophy, brain injury (due to disease or trauma), polio, other OH or degenerative conditions, etc., and require special equipment, additional personal attention, wheelchairs, and other assistive devices.

DEAF AND HARD OF HEARING (DEAF/HH) - Students are not able to understand and acquire speech and language through the sense of hearing even with sound amplification and use sign language to communicate.

APHASIA - Students have normal intelligence as judged by a test which does not use oral directions or require oral expression, but falls two standard deviations below the mean in oral language areas and show severe receptive and expressive language problems.

AUTISTIC - Students generally display inappropriate behaviors, engage in self stimulating activities, and have difficulty relating to others.

DEVELOPMENTALLY DISABLED (DCH) - Students are the most limited of those involved in special education and require toilet training, feeding and dressing skills, and development of general awareness and stimulation to surroundings.

DEAF/BLIND - Students are both deaf and blind and participate in a program designed to bring them into contact with the environment around them and to increase their self-help skills, as well as developing sufficient communication skills to permit their expressing needs and relating to other humans.

EDUCATIONALLY HANDICAPPED (EH) - Students demonstrate average to above average ability on an individual test of intelligence but experience learning difficulties or behavior disorders and are placed in a special day class for four periods a day or in an LDG class for one to three periods a day.

SERIOUSLY EMOTIONALLY DISTURBED (SED) - Students are educationally handicapped in addition to displaying an emotional disturbance which cannot be dealt with appropriately in the EH programs at the local schools and display behaviors ranging from aggressive to extremely withdrawn.

BUS EVACUATION PROCEDURES

<u>CATEGORY</u>	<u>EVACUATION PROCEDURE</u>	<u>COMMENTS</u>
Deaf and hard of hearing	<ol style="list-style-type: none"> 1. Have pupil evacuate by walking or crawling to nearest unrestrictive exit. 2. Have helper assist driver using fire extinguisher, if necessary. 3. Have helper control other students at control area. 	<ol style="list-style-type: none"> 1. Mild communication problem; look and speak directly at pupil 2. No noted mobility problems
Deaf/Blind	<ol style="list-style-type: none"> 1. Get attention by "tapping twice" on shoulder. 2. Use finger spelling to indicate evacuation. 	<ol style="list-style-type: none"> 1. Restricted communication problem. 2. No mobility problem.
Mentally retarded	<ol style="list-style-type: none"> 1. Develop routines of word commands for evacuation. 2. May be a designated helper for blind pupils. 	<ol style="list-style-type: none"> 1. Limited communication problem 2. No noted mobility problem.
Educationally handicapped	<ol style="list-style-type: none"> 1. Ambulatory (walk off) 2. With capabilities help other pupils to evacuate 3. Have students assist driver by using a fire extinguisher, if fire is present 	<ol style="list-style-type: none"> 1. Assess each individual to determine if they can or cannot help

Multihandicapped
and orthopedically
impaired

1. Nonambulatory (confined to some seating device)
May crawl or need to be carried to exit.

1. May have extreme communication and mobility problem.

Other health
impaired and
seriously emotionally
disturbed and speech
mobility
impaired.

1. Use a firm tone and physically direct pupil to an emergency exit.
2. Pupil may have to be guided by another pupil to control area.

1. Difficult to communicate with pupils.
2. Pupils have to walk off bus.

Specific
learning disability

1. Have pupil evacuate by walking to nearest exit assisted by helper
2. Speak slowly, clearly and use simple sentences.

1. May not understand instructions in emergency situations.

Visually
handicapped

1. Can walk off with help of a selected helper.
2. Have pupil hold hands with another pupil while evacuating. Use same method in control area.

1. Can communicate
2. Has mobility

APPENDIX D

The National Association of State Directors of Pupil Transportation Services (NASDPTS) drafted the Position Papers included in this Appendix.

The National Association of State Directors of Pupil Transportation Services was established in 1968. The membership represents all 50 states and several U. S. territories. The purpose of the association is to provide leadership, assistance and motivation to the Nation's school transportation industry with the goal of providing safe, efficient, economical, and high-quality transportation to school children on their trips to and from school and school-related activities.

The association works closely with federal organizations that can influence school transportation, such as:

- United States Congress
- Department of Transportation
- National Transportation Safety Board

Additionally, the Association interacts with other organizations and associations at the state and national levels that have an interest in school transportation.

Examples of other organizations and associations include:

- National Safety Council
- National Association for Pupil Transportation
- National School Transportation Association

Position Papers included in Appendix D are:

- History of School Bus Safety
- Safety Recalls Involving School Buses
- Passenger Crash Protection in School Buses
- School Bus Seat Capacity
- School Bus Drivers – Their Importance and Training
- Vans Used for School Transportation
- School Buses versus Transit Buses
- Speed Limits for School Buses
- Advertising on School Buses



National Association of State Directors of Pupil Transportation Services

Position Paper

Speed Limits for School Buses

On December 8, 1995, the National Speed Limits ceased to exist. States were free to establish whatever speed limits they wished on their highways. While some states chose to leave the speed limits at existing levels, typically 55 or 65 miles per hour, others raised the speed limits, typically back to the pre-1970's energy crisis levels of 70 miles per hour or higher.

Safety experts agree that higher travel speeds result in more severe crashes. While improved safety technology in modern motor vehicles provides higher levels of occupant crash protection compared to motor vehicles of the 1960's and 1970's, safety experts agree that the higher speed limits will likely result in additional fatalities and serious injuries in motor vehicle crashes.

What does this mean with respect to school bus safety? Should school buses be driven at the higher speed limits?

Throughout their history, school buses consistently have been one of the safest forms of motor vehicle transportation. During the 1960's and 1970's when higher speed limits were in effect across the Nation, school buses were transporting students safely to and from school and school-related activities. The numbers of school bus occupant fatalities in those years were as low as they have been in recent years. During that time, school buses typically were driven at speeds 10-15 miles per hour slower than the posted speed limit. These slower travel speeds reduced the potential crash severity for school buses.

Traffic volume on the Nation's highways has increased dramatically over the past twenty years. Also, there have been increases in the number of school buses, the number of miles travelled by school buses, and the number of students transported in school buses. Thus, there is a greater exposure to potential school bus crashes in the 1990's than in the 1970's.

Over the years, the National Association of State Directors of Pupil Transportation Services has initiated and supported a number of efforts to enhance the conspicuity of school buses. Examples include the color of the bus (National School Bus Yellow), retro-reflective markings, strobe lights, and daytime running lights. These items play a significant role in making the school bus a highly identifiable vehicle on the road. This allows other drivers to recognize the school bus and realize that it is possibly travelling at a slower speed.

In consideration of the above, the National Association of State Directors of Pupil Transportation Services believes that school buses should continue to operate at the speed limits in effect for school buses in each state prior to December 8, 1995. In some areas of the country, this would result in school buses operating at speeds 10-15 miles per hour under the posted speed limit.

There is ample evidence that this differential in travel speeds does not present a safety risk to school buses or other vehicles. The slower speeds will reduce the potential crash severity level in vehicle-to-vehicle crashes involving a school bus, while also reducing fuel consumption.

The State Directors Association is confident that the safety of the Nation's students will be a primary consideration when decisions are made concerning their transportation to and from school and school-related activities. Driving at higher speeds in school buses so as to shorten the travel time by a few minutes is not worth the inherent increase in risk.

Position Paper

Vans Used for School Transportation

Background

In recent years, the use of passenger vans to transport children to and from school and school-related activities has become a significant issue. In an apparent effort to reduce transportation costs, some school districts across the nation have purchased or leased full-sized passenger vans with capacities of more than 10 persons, and/or mini-vans with capacities under 10 passengers, in lieu of school buses. Since drivers of these vehicles are not required to possess a Commercial Drivers License, school districts may be able to bypass a number of state/local-mandated requirements. In addition to the lack of a Commercial Drivers License, drivers of vans may not receive specialized driver training, a background check, a physical, drug and alcohol testing, or a driver record check. This is an alarming situation with potentially disastrous consequences.

Discussion

Under federal law, any motor vehicle designed to carry more than 10 persons is classified as a bus. A bus is classified as a school bus if it is used, or intended for use, in transporting students to and from school or school-related activities. At the direction of the U.S. Congress, the U.S. Department of Transportation, National Highway Traffic Safety Administration, only has authority over the manufacture and first sale of a motor vehicle. After a vehicle is sold, only state and local governments can regulate the use of motor vehicles.

Federal law prohibits dealers from selling/leasing a motor vehicle with a capacity of more than 10 persons for the purpose of transporting students to and from school or a school-related activity unless the vehicle complies with the applicable Federal Motor Vehicle Safety Standards for school buses. While there is no federal prohibition against dealers selling or leasing used full-sized vans or new/used mini-vans for the purpose of transporting students, such actions are counter to the basis for the federal law previously mentioned – students are safer in school buses. Likewise, there are no federal prohibitions against companies renting vans to schools, unless the rental company purchases a new full-sized van for the purpose of renting the van to a school.

Manufacturers of full-sized passenger vans (Chrysler Corporation, Ford Motor Company, and General Motors Corporation) have provided written notification to each of their dealers of the federal law as a reminder not to sell/lease passenger vans with seating capacities of more than 10 persons to schools. Unless the van has been modified, and certified by the manufacturer/modifier as a school bus, it is considered a “non-conforming” van, since it does not conform to the Federal Motor Vehicle Safety Standards for school buses. It is the responsibility of the seller/lessor to ascertain the intended use of the vehicle. The seller/lessor is subject to substantial penalties for knowingly selling or leasing a vehicle that does not meet the Federal Motor Vehicle Safety

Standards for school buses, including civil fines and injunctive sanctions. It is unfortunate that some sellers/lessors apparently are ignoring this information.

Full-sized passenger vans and mini-vans do not offer the same level of safety to occupants as a full-sized school bus or a school bus built on a van-type chassis. In a crash, the risk of a serious injury or fatality is significantly higher for the occupants of a van. Typically, any crash resulting in serious injuries or fatalities to school children results in lawsuits. The fact that a school used a vehicle that was not manufactured, sold, or leased in accordance with federal laws governing school transportation most likely would be a significant issue in the lawsuit. Depending upon state insurance regulations and insurance policies themselves, this fact could have an impact on the liability responsibilities of the insurance company used to insure the operations of the school.

The National Highway Traffic Safety Administration (NHTSA) has investigated and fined a number of dealers for violating the federal law. The National Association of State Directors of Pupil Transportation Services supports these actions by NHTSA, and encourages everyone to report illegal sales or leases of non-conforming vans to NHTSA. The agency maintains a toll-free Auto Safety Hotline [1-800-424-9393] that can be used to report such information to NHTSA's Office of Chief Counsel.

Conclusions

The National Association of State Directors of Pupil Transportation Services believes that it is appropriate to require higher levels of safety in vehicles that transport children to and from school and school-related activities. Accordingly, the State Directors Association supports the position that school children should be transported in school buses which provide the highest levels of safety, not in full-sized vans or mini-vans which do not meet the stringent school bus safety standards issued by the federal government and recommended by the National Conference on School Transportation, an organization of state school transportation officials.

The State Directors Association endorses the October 15, 1997, statement of Dr. Ricardo Martinez, Administrator of NHTSA at that time, -- "A school's purchase or use of 10-15 passenger vans or non-school buses could result in school children being transported in vehicles that do not provide an appropriate level of safety." The State Directors Association believes states are in the best position to ensure that vans of any size, both new and used, are not utilized in lieu of school buses. This can be accomplished by establishing strict requirements on the types of motor vehicles that can be used within a state for transporting children to and from school and school-related activities.

For that reason, the State Directors Association supports the findings and conclusions of the National Transportation Safety Board's special report, "Pupil Transportation in Vehicles Not Meeting Federal School Bus Standards," which was adopted on June 8, 1999.

After investigating four crashes involving full-sized passenger vans and one non-school bus, which resulted in a total of eight fatalities to children, the Safety Board concluded that the children would have fared significantly better in the crashes if they had been in school buses. The Safety Board made the following Safety Recommendations:

To the U.S. Department of Health and Human Services:

“Require that Head Start children be transported in vehicles built to federal school bus structural standards or the equivalent.”

To the Governors of the 50 States and the Mayor of the District of Columbia:

“Require that all vehicles carrying more than 10 passengers (buses) and transporting children to and from school and school related activities, including, but not limited to, Head Start programs and day care centers, meet the school bus structural standards or the equivalent. Enact regulatory measures to enforce compliance with the revised statutes.”



National Association of State Directors of Pupil Transportation Services

History of School Bus Safety -- Why Are School Buses Built as They Are?

In the earliest days of our Nation, education was mostly provided through churches. Public education started in the mid 1600's, but pupil transportation was not provided until the late 1800's. By 1910, thirty states had pupil transportation programs in place. The first "vehicles" used to transport students were nothing more than horse-drawn carts which were borrowed from local farmers. With the development of automobiles and trucks with gasoline-powered engines, the school "wagon" was replaced with the school "truck." During the 1920's and 1930's, the Nation's roadway system was expanding, especially in rural communities. This led to a greater need for vehicles to transport school children and the formation of an industry of manufacturers of school buses.

As the number of school buses operating on the roadways increased, there came the inevitable problems. Several serious tragedies occurred involving school buses which caused school officials to think seriously about developing safety guidelines or standards. In 1939, representatives from 48 states gathered to develop standards and recommendations for school buses. Since that time, there have been a total of 12 National Conferences on School Transportation where representatives from each state gather to revise existing and establish new safety standards for school buses and operating procedures for the safe transportation of school children, including those with disabilities.

In addition to the requirements developed by the school transportation community itself, there are Federal standards that apply to school buses. As a result of the passage of the National Traffic and Motor Vehicle Safety Act of 1966 and the School Bus Safety Amendments of 1974, the National Highway Traffic Safety Administration, an agency of the U.S. Department of Transportation, has issued 34 Federal motor vehicle safety standards which apply to school buses. These standards cover a wide range of components and systems, e.g., brakes, steering, glazing, lights, fuel system integrity, mirrors, heaters/defrosters, compressed natural gas containers, etc., and apply to all types of motor vehicles. Many of these Federal standards have unique requirements for school buses, e.g., outside mirrors to provide the seated driver with a view in front of and along both sides of the bus; amber and red warning lights when the bus is stopped to load or unload passengers; emergency exits; and fuel system integrity. In addition, four of the standards are unique to school buses. These are:

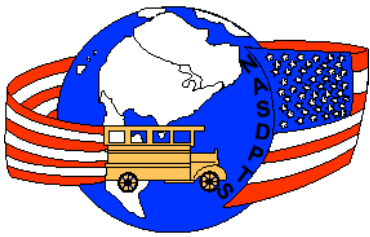
1. "School Bus Rollover Protection," which specifies the minimum structural strength of buses in rollover-type accidents;
2. "School Bus Body Joint Strength," which specifies the minimum strength of the joints between panels that comprise the bus body and the body structure;

3. "School Bus Passenger Seating and Crash Protection," which establishes requirements for school bus seating systems for all sizes of school buses, and provides minimum performance requirements for wheelchair securement/occupant restraint devices and establishes a requirement that wheelchair locations be forward facing; and
4. "School Bus Pedestrian Safety Devices," which requires school buses be equipped with an automatic stop signal arm on the left side of the bus to help alert motorists that they should stop their vehicles because children are boarding or leaving a stopped school bus.

The design and construction of today's school buses is a direct result of both the Federal motor vehicle safety standards that apply to school buses and the standards adopted by the National Conferences on School Transportation, as well as some requirements that are unique to particular state or local school districts. While some may argue that today's school buses do not look much different than their predecessors of 30-40 years ago, they are dramatically different. The improvements made to school buses in the past decades, as well as improvements in driver training, school bus maintenance, and school bus operating procedures, have been responsible for the outstanding safety record of school transportation. Many crashes are actually avoided by well-trained school bus drivers.

Every year, approximately 390,000 public school buses travel about 4.2 billion miles to transport 23 million children to and from school and school-related activities. While catastrophic school bus crashes have occurred, they are rare events. Most school bus crashes are minor, and in most crashes involving passenger cars and light trucks, the school bus has the advantage of its larger size and weight. As a result, many more people are killed or injured each year in vehicles that crash into school buses than are killed or injured in the school buses. It is difficult, if not impossible, to develop ways to protect school bus occupants in catastrophic crashes, such as those involving trains and heavy trucks. The crash forces in those accidents are so great that any reasonable structural design cannot maintain the integrity of the vehicle, which is one critical component of occupant crash protection.

The safety of pupil transportation is the highest priority of the National Association of State Directors of Pupil Transportation Services. The Association continues its active involvement with Federal, state, and local governments to establish standards and programs that will continue to safeguard the future generations of America.



National Association of State Directors of Pupil Transportation Services

Position Paper

Transporting the Nation's School Children [School Buses - Transit Buses]

Since the late 1800s, school-age children have been transported to and from school in unique school vehicles. The first “vehicles” used to transport students were nothing more than horse-drawn wagons which were borrowed from local farmers. With the development of automobiles and trucks with gasoline-powered engines, the school “wagon” was replaced with the school “truck.” During the 1920s and 1930s, the Nation’s roadway system was expanding, especially in rural communities. This led to a greater need for vehicles to transport school children and the formation of the school bus industry, which is comprised of bus manufacturers and school transportation providers. Today, school transportation is the largest public mass transportation system in the country.

As the number of school buses operating on the roadways increased, there came the inevitable problems. Several serious tragedies occurred involving school buses which caused school officials to think seriously about developing safety guidelines and recommended safety standards. In 1939, representatives from 48 states gathered to develop standards and recommendations for the school bus industry. Since that time, there have been a total of 12 National Conferences on School Transportation where representatives from each state gathered to revise existing standards and establish new safety standards for school buses and operating procedures for the safe transportation of students, including those with disabilities.

In addition to the requirements developed by the school transportation community, there are 36 Federal Motor Vehicle Safety Standards that apply to school buses. These standards cover a wide range of vehicle components and systems. Many of these Federal standards have unique requirements for school buses, e.g., outside mirrors to provide the seated driver with a view in front of and along both sides of the bus, amber and red warning lights when the bus is stopped to load or unload passengers, emergency exits, and fuel system integrity. Of these 36 Federal standards, four are unique to school buses. They are:

- “School Bus Pedestrian Safety Devices,” which establishes the performance and use requirements for stop signal arms to minimize the possibility of vehicles passing a stopped school bus and striking pedestrians in the vicinity of the bus;
- “School Bus Rollover Protection,” which specifies the minimum structural strength of school buses in rollover-type accidents;
- “School Bus Body Joint Strength,” which specifies the minimum strength of the joints between the panels that comprise the school bus body; and

- “School Bus Passenger Seating and Crash Protection,” which establishes requirements for seating systems in all sizes of school buses, and provides minimum performance requirements for wheelchair securement/occupant restraint devices and establishes a requirement that wheelchair locations be forward facing.

The design and construction of today’s school buses are a direct result of both the Federal Motor Vehicle Safety Standards that apply to school buses and the standards adopted by the National Conferences on School Transportation, as well as some requirements that are unique to a particular state or local school district. While some may argue that today’s school buses do not look much different from their predecessors of 30-40 years ago, they are dramatically different.

Every school day, millions of parents and their children rely on the “yellow” school bus to provide safe and dependable transportation to and from school and school-related activities. The outstanding safety record of this unique form of transportation is based on several factors:

- Clearly distinguishable vehicles, equipped with special safety features, which are afforded preferential treatment by other motorists -- specifically, motorists are required to stop while students enter or leave a stopped school bus;
- Specially trained drivers that are concerned with only a single category of riders and are required to provide discipline to the student passengers;
- Specially designed student education programs concerning school bus safety, including emergency evacuation drills; and
- Specially designed routes and schedules to minimize the distance that students need to walk to the school bus stop.

Like school buses, public transit buses also have established an excellent safety record with their primarily adult passenger population. Transit buses are required to meet the same Federal Motor Vehicle Safety Standards as school buses in a variety of areas, such as steering, brakes, tires, and flammability. However, transit buses are not required to meet a series of safety standards that are designed to make a school bus more crashworthy and provide high levels of occupant crash protection to school bus passengers. There are no Federal standards that directly deal with occupant crash protection for transit bus passengers. The passenger seats in transit buses can face in any direction, and often are completely unpadded.

Over the past few decades, the largest school transportation safety problem has been in the school bus loading zone, where children get on and off the bus. The Federal requirement that school buses have flashing lights on the front and rear, and a stop signal arm on the left side, provide notice to passing motorists to stop their vehicles in accordance with State law.

Stopping traffic in areas where children get on and off school buses, and are often crossing the street, has proven to be beneficial in protecting students who must cross the street to reach the bus or go home. Stopping traffic creates a safer environment for young children who are not as adept as adults with negotiating their way through traffic.

In most States, there is no mandate to provide students with transportation to or from school. Accordingly, funding for school transportation in those States does not always receive as high a priority in budget decisions as mandated education programs, e.g., facilities, teacher salaries, computers, and books. Even in States where transportation of students to and from school is required by law, funding shortfalls in recent years have created problems in maintaining an adequate school transportation program. As a result of budget constraints, many schools are being forced to seek alternative means of providing transportation services for students. A growing number of school districts are turning to public transit buses as a means of getting students to and from school each day.

The American Public Transit Association estimates that transit buses provided over 800 million student-related passenger trips in 1994. This translates into approximately 2 million students (8 percent of all public school students) who rode transit buses to and from school each school day. All indications are that this number is increasing and will continue to do so in the future.

The National Association of State Directors of Pupil Transportation Services believes that the safest way to transport children to and from school and school-related activities is in a school bus. Nevertheless, the State Directors Association recognizes that there are funding constraints in some state/local school districts that make it impossible for all children to be transported in school buses. It is unlikely there will be sufficient increases in future education budgets of state and local school districts to allow all students to be transported to and from school in school buses. Therefore, parents and transportation professionals must recognize that alternative modes of transporting students to and from school are being used and the safety of students transported by these modes must not be compromised.

The State Directors Association realizes that the transit industry is a major provider of home-to-school transportation, and the number of students using public transportation will continue to increase in the future due primarily to budgetary decisions. Accordingly, the State Directors Association strongly urges members of the pupil transportation and public transportation communities to join forces to mutually ensure the safe transportation of students on transit vehicles.

At the same time, the State Directors Association is of the opinion that the appropriate agencies of the Federal government should initiate a study to better define the extent to which public transit vehicles are being used to transport students to and from school. The study should assess the crash/injury data for both school buses and transit buses. Additionally, the study should define the differences between school buses and public transit buses, and their respective operations, that could affect safety. Based on the results of this

study, the Federal agencies should evaluate their respective standards/recommendations/guidelines to determine if any changes are necessary to ensure continued safe transportation of the Nation's school children.

The State Directors Association supports several recent actions at the Federal level to gather information on the use of public transit vehicles to transport children to and from school. On March 21, 1996, Senator Frank Lautenberg of New Jersey introduced Senate Bill 1633, "Omnibus School Transportation Safety Act of 1996." Section 11 of that bill would require the U.S. Secretary of Transportation to conduct a study of the use of transit vehicles for school bus operations. The study would identify and analyze the differences between school bus operations carried out directly by schools or local educational agencies and school bus operations carried out by transit operations, including school bus tripper service. Two specific components of the study would address the differences in: (1) vehicle attributes that affect safety; and (2) routes and operational requirements that affect safety.

On April 2, 1996, Senator Mike DeWine of Ohio chaired a hearing of the Labor and Human Relations Committee of the United States Senate on school transportation safety. Senator DeWine "called on every state to ... explore the potential hazards of school children using public transportation." He cited two examples of students being killed or seriously injured after exiting a transit bus and noted that "there's an obvious danger to children who do not ride school buses." Senator DeWine noted that there is a need to gather information on school bus operations and transit operations.

Finally, on September 30, 1997, the National Transportation Safety Board, after completing its investigation of a fatal crash involving a student pedestrian that had exited a transit bus, issued the following Safety Recommendation to the U.S. Department of Transportation: "Collect accident data involving school children riding on transit buses, including pedestrian accidents, to assist development of appropriate means to ensure that school children riding on transit buses are afforded an equivalent level of operational safety as school children riding on school buses." The Safety Board further recommended that the U.S. Department of Transportation work with the National Association of State Directors of Pupil Transportation Services, the American Public Transit Association, and the Community Transportation Association of America to implement the findings of the accident data analyses.



NATIONAL ASSOCIATION OF
STATE DIRECTORS OF
PUPIL TRANSPORTATION SERVICES

Position Paper

School Bus Drivers -- Their Importance and Training

Background:

School buses are the safest vehicles on the road. This safety record is the result of the interaction among several items -- the design and construction of the school bus; the operating condition of the bus; the planning of the school bus route; the location of the loading zones; and, the school bus driver. The role of the school bus driver in ensuring the safe transportation of children to and from school and school-related activities is as important as any other link in the school transportation safety chain.

A modern, safe, well-maintained school bus operating on the best possible terrain with ideal loading zones can not compensate for an ill-trained school bus driver. Likewise, today's highly-trained school bus drivers can not provide the safest possible transportation to students with out-of-date, poorly-maintained school buses traveling over illogical routes, and stopping at undesirable loading zones.

While the construction and safety equipment of school buses is critical to providing safety to school bus occupants when a crash occurs, it is the school bus driver who often prevents incidents and crashes each school day. The safety record of school bus transportation is a testament to school bus drivers and the rest of the school transportation industry.

Discussion:

Over the years, a number of actions have been taken to improve school bus driver selection and training activities. Since the early 1920's when training manuals for school bus drivers were developed, private and public entities have continued their efforts to develop and improve school bus driver training. Then, in the 1970's, the National Highway Traffic Safety Administration (NHTSA) issued standards (which later became guidelines) for school bus driver training.

In the early 1990's, the Federal Highway Administration issued a requirement that all school bus drivers possess a Commercial Drivers License (CDL). To attain this license, school bus drivers must pass knowledge and skills tests, be subject to random drug and alcohol testing, and pass a biennial physical. As with other individuals that come in contact with school children, school bus drivers must pass a criminal background check. While actions at the federal level have been important and beneficial in terms of improving school bus safety, there are equally important activities that occur at the state and/or local level.

States long have required school bus drivers to take written exams designed to test an applicant's knowledge of state laws and regulations affecting school transportation. In addition, behind-the-wheel road tests are used to evaluate an applicant's driving skills. Each state develops its own written and road tests based on the unique operational characteristics of its school transportation system. States continue to develop training curricula and support materials for both new drivers and in-service and re-certification testing for existing school bus drivers, often utilizing the latest technologies available. States also have made great efforts in sharing this information with other interested parties.

For example, at the National Conference on School Transportation (which is held approximately every five years), state delegations meet to develop guidelines for school buses and their operation. Some of these guidelines address suggested classroom and behind-the-wheel training that school bus drivers should receive, as well as the basic requirements for selecting and evaluating school bus drivers.

Driving the school bus is not the only task required of school bus drivers. Before the school bus is driven each day, the driver is personally responsible for conducting a physical check of various vehicle systems, e.g., brakes, tires, lights, steering, etc., to ensure that all systems meet requirements for safe and proper operation. Drivers are responsible not only for the discipline of the children on the bus, but also any medical or other emergencies that may arise during the trip to and from school or school-related activity. Finally, many school bus drivers must attend to the unique requirements of students with special needs, which frequently requires additional special training and dedication.

Selecting and training men and women to be school bus drivers is an important task. School bus drivers must be knowledgeable about school transportation, have excellent driving skills, be mechanically knowledgeable, and be a disciplinarian, health provider, and a friend. This is not an easy combination of skills and personality traits to find in individuals, but ones that are important in the selection and training of school bus drivers. In addition, school bus drivers need to be in sound physical and mental health.

Since the students see the same school bus driver every school day, the driver usually becomes a "friend" to the children. For the parents of the children, especially those with children just starting school, the school bus driver is the person they entrust with the safety of their children.

Recent and Current Activities:

A number of activities at the national level either have occurred recently or are underway. In 1998, NHTSA, with the assistance of the pupil transportation industry, developed and provided wide distribution of its training program, "School Bus Driver In-Service Safety Series." This program provides state and local school districts with training information and materials in the following areas:

- Driver Attitude
- Student Management
- Highway-Rail Grade Crossing Safety
- Vehicle Training Knowing Your Route
- Loading and Unloading
- Transporting Infants and Toddlers

While these training modules are intended to provide refresher training on important topics, they are not intended to be training for new school bus drivers.

During 2000, NHTSA will complete the development and distribution of two additional in-service training modules on:

- Driving in Inclement Weather
- Wheelchair Securement and Wheelchair Lifts

In December 1999, the Motor Carrier Safety Improvement Act was signed into law, and created the Federal Motor Carrier Safety Administration (FMCSA) within the U.S. Department of Transportation. One of the responsibilities given to FMCSA is the oversight of the Commercial Drivers License Program. Within that area of responsibility, the Act directed FMCSA to initiate rulemaking on the feasibility of amending various aspects of the Commercial Drivers License Program. One of the rulemakings will deal with the potential for creating a special CDL endorsement for drivers of school buses. As stated in the Act, the rulemaking for considering a school bus drivers' endorsement "shall, at a minimum:

- include a driving skills test in a school bus; and
- address proper safety procedures for loading and unloading children; using emergency exits; and traversing highway rail grade crossings."

Conclusions:

The National Association of State Directors of Pupil Transportation Services supports efforts at federal, state, and local levels that are designed to improve the knowledge and skills of school bus drivers. The State Directors Association will be actively involved in any federal initiatives or rulemaking activities that impact school bus drivers.

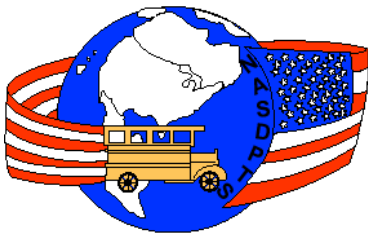
The State Directors Association notes that the demands on school bus drivers have increased in recent years. For example, school bus drivers must deal with inattentive and distracted motorists; disruptive students on the school bus; inappropriate or even illegal activities on school buses and at school bus stops; and a myriad of daily incidents. These factors highlight the importance of on-going training.

The State Directors Association notes that there is a shortage of school bus drivers in many parts of the Nation, which is typical when the Nation's economy is good and there are many competing job opportunities. Many school bus drivers are part-time, rather than full-time employees which also impacts the job benefits (for example, insurance and retirement). The State Directors Association encourages states and local school districts to develop programs for training and hiring school bus drivers, and to compensate school bus drivers at a level that is commensurate with the job they perform.

Finally, the State Directors Association commends school bus drivers and driver trainers for the outstanding jobs they do every school day in providing safe transportation to the Nation's children.

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Issued: March 2000



National Association of State Directors of Pupil Transportation Services

POSITION PAPER

Advertising on School Buses

Over the past few years, a number of states and local school districts have considered allowing the placement of advertisements on the exterior of school buses. While several states or school districts have proceeded with such programs, most states continue to prohibit advertising on school buses. There are a number of issues that are relevant to advertising on school buses, including potential safety consequences and the content of the advertising and potential legal challenges to any content restrictions.

Why Advertising?

First, and foremost, it appears economics is the primary reason that school districts consider the use of advertising on school buses. Education and school transportation budgets have been decreasing, and school transportation officials are forced to do more with less funding. Thus, finding alternative sources of revenue is a significant issue in many states and local school districts. There are a wide variety of programs that have been initiated across the United States to reduce the cost of school transportation, such as extending student walking distances and eliminating school bus service in favor of public transit service. Other programs have been initiated in efforts to obtain additional revenue, such as imposing a passenger fee and selling advertising space on school buses. If school transportation budgets were fully funded, it is unlikely that any of these initiatives would be undertaken.

Potential Safety Concerns

There has been considerable debate between those that believe advertising on school buses is a legitimate and reasonable means for obtaining additional revenue to maintain school bus operations and those that believe advertising on school buses presents an inherent safety risk to students.

A significant claim by the advocates for advertising is that there are no data to show that advertising on school buses, or any other type of bus, is or would be distracting to passing motorists. And thus, they believe, there are no safety risks associated with advertising on school buses, or the risks are acceptable.

Opponents to advertising on school buses acknowledge that there are no statistics to show the potential safety consequences of advertising on the outside of school buses. They point to one of the concepts of school buses that contribute to their outstanding safety record -- large, uniquely-colored buses that are equipped with flashing warning lamps and stop signal arms to warn passing motorists that the bus has stopped to allow students to board or leave the school bus. Their argument is that if you put advertising on the exterior of a school bus to catch the attention of passing motorists (since that is precisely what advertising is designed to do), then you run the inherent risk that passing motorists will focus their attention on the advertising and not notice, for example, that the school bus has stopped, or turned on its flashing lamps, or allowed students to exit the bus.

It is important to understand that the reason there are no data to prove whether or not there is a safety risk associated with advertising on school buses is that no accident data has ever been collected in sufficient quantity to statistically assess on a national basis the effect that advertising on any type of vehicle (transit buses, taxi cabs, etc.) has on driver distraction and resulting accidents.¹ However, there have been studies of the effects of various types of driver distraction and inattention on accidents.

In a 1996 technical paper entitled, “The Role of Driver Inattention in Crashes,” the National Highway Traffic Safety Administration analyzed its 1995 national accident data and estimated that 3.2 percent of all towaway crashes were caused by the driver being distracted by something outside of the vehicle, such as another person, object, or activity. This result is consistent with the “1979 Indiana Tri-Level Study of the Causes of Traffic Accidents,” which found that approximately 4 percent of crashes were caused by an external distraction to the driver, such as attention to a competing event, activity, or event outside the vehicle. The 1995 NHTSA nation-wide data is also consistent with the results of a 1994 study of crashes in North Carolina which showed that about 3.7 percent of the 18,000 crashes studied were attributed to driver distraction from a source outside the vehicle.

These statistically-based analyses dealt with driver distraction from all types of sources outside the vehicle, including other persons, activities, and advertising on signs, buildings, and other motor vehicles. While it is not possible to estimate the risk of motor vehicle crashes attributed solely to drivers being distracted by advertising, it is evident that driver distraction is a definitive causal factor in a small but significant percentage of motor vehicle crashes. Since advertising on the exterior of a school bus is a potential source of driver distraction, it is reasonable to assume that such advertisements will increase the likelihood of driver distraction, and potentially result in accidents, injuries, and fatalities that would not have otherwise occurred.

Advertising Content and Potential Legal Issues

The First Amendment to the U.S. Constitution states, “Congress shall make no law ... abridging the freedom of speech ...”. Over the past few decades, there have been countless lawsuits and legal decisions concerning freedom of speech. While no lawsuits have been filed on the issue of advertising on school buses, there have been cases that may have applicability to the issue of controlling the content of advertising on school buses.

In December 1993, a U.S. District Judge in Boston ruled that the Massachusetts Bay Transportation Authority’s “G-rated” advertising policy violated the U.S. Constitution. The advertisements in question dealt with the use of condoms to prevent the spread of AIDS. The federal judge stated that a transit service “cannot open its transit car doors to public service advertising and hang only its favorite posters.” The judge noted that the Massachusetts Bay Transportation Authority had concurrently accepted advertising for the R-

¹ While there have been anecdotal data from a few school districts over a relatively short period of time, those data are insufficient in quantity to make any statistically-based statements about the safety risks associated with advertising on school buses. Also, it is not clear whether reliable, analytical data collection techniques were used in determining if the driver of the other vehicle involved in the accident was distracted prior to the accident.

rated movie, *Basic Instincts*. With respect to “protecting” children from inappropriate advertisements, the judge wrote, “that concern evaporates on examination because shielding children from [the] advertisements is insufficiently compelling to justify the resulting limitation of speech.”

Based on decisions by the United States Supreme Court, there are three types of fora: (1) traditional public forum; (2) public forum created by government designation; and (3) nonpublic forum. In 1974, the United States Supreme Court held that advertising space on a city transit bus was not considered to be a public forum for purposes of the First Amendment. This decision allows a transit system to control, to an extent, the type and content of advertisements it will accept because the transit system is considered to be a “nonpublic forum.” However, lawyers and legal experts have expressed concern that a nonpublic forum could become a public forum based on the acceptance of certain types of advertisements. This would eliminate the ability to establish advertising content criteria. As shown in the Massachusetts Bay Transportation Authority case, it may be difficult to establish and have individuals consistently apply reasonable advertising content criteria.

Supporters of advertising on school buses believe that committees should be formed to establish criteria for the appropriateness of advertising, and believe the criteria will protect them from legal action. The fact of the matter is that such criteria may be challenged in court, and it is impossible for anyone to predict the likelihood of success of any legal challenge to restricting the type of advertising on school buses. While legal challenges to state or local policies may or may not occur, the potential of a lawsuit is always present. The cost for a state or local school district to defend its advertising policy in court could conceivably exceed the revenue obtained from the advertising itself.

Conclusions

Based on all of the above information, the National Association of State Directors of Pupil Transportation Services does not endorse advertising on the exterior of school buses. The potential increase to driver distraction, a known cause of motor vehicle accidents, presents a safety problem around school buses that cannot be ignored. Additionally, it may be difficult or impossible, and legally expensive, to control the types of advertising that could appear on school buses.

While the State Directors Association opposes advertising on school buses, it is recognized that some school districts currently use advertising on school buses as a means of generating revenue for school budgets. The State Directors Association assumes that these school districts have exercised all other means for obtaining additional revenue before selling advertising space on their school buses. For those school districts that allow advertising on school buses, the State Directors Association encourages them to develop size and location criteria for the advertising on the exterior of school buses. Additionally, any device(s) used for securing advertisements on school buses must be designed so that children’s clothing or related items do not become snagged on them.

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Revised August 1997



Position Paper

School Bus Seat Capacity

Background:

School buses transport passengers in a wide range sizes (height and weight). Accordingly, it is not possible to define the absolute capacity of a school bus under all conditions. The typical school bus seat is 39 inches wide and generally is considered to have a maximum seating capacity of three. This capacity rating is not meant to be a measure of the absolute capacity of the school bus seat for all sizes of passengers. Rather, it is the “rated maximum capacity” as determined by the school bus body manufacturer and specified on the vehicle. This rated capacity is determined by dividing the width of the seat by the number “13,” which represents the 12.8-inch hip breadth of a 5th percentile adult female test dummy as specified in Federal Motor Vehicle Safety Standard 208, “Occupant Crash Protection.”

[A 5th percentile adult female dummy is approximately 4-feet 11-inches tall and weighs 102 pounds.]

Discussion:

The 1995 National Conference on School Transportation discussed guidelines for school transportation operations which are designed to “ensure safe and efficient student transportation.” For example, it is suggested that a local pupil transportation director route and schedule school buses “for safe, efficient and economical transportation service.” An integral part of providing “safe” transportation in a school bus, or any other type motor vehicle, is that the passengers be properly seated. From a safety perspective, a person who is either standing or improperly seated in a school bus, or any other type of motor vehicle, is not afforded the benefits of the safety protection designed into the vehicle and is in increased jeopardy of injury in the event of a crash or extreme sudden driving maneuver.

Additionally, there must be sufficient space on the school bus seat for each passenger’s body to be completely within the seat compartment. In the event of a crash or sudden driving maneuver, students that are not properly seated within the seat compartment, may not benefit from the passenger crash protection systems built into the school bus under Federal and State regulations.

In practice, school buses transport students of various sizes, typically from pre-schoolers to 12th graders. While a 39-inch seat may safely accommodate three pre-schoolers and/or primary school-aged children, it may not safely accommodate the same number of older children. Since the size of growing children varies, the number of pupils that can safely occupy a school bus seat also changes. Consequently, the “in use” capacity of a school bus varies depending on the size of the pupils transported. The use of a child safety seat for an infant or toddler, or special equipment needed for a child with disabilities, may further impact the “in-use” capacity of a school bus.

It is important to consider the size of the passengers on each school bus route when determining the “in-use” capacity of a school bus. It is recognized that at certain times, for example at the beginning of a school year, it may not be possible to know exactly how many students will arrive at the school bus stops on a route seeking transportation to and from school. For that reason, there may be instances where overcrowding exists temporarily on some school buses. In such situations, efforts should be made to provide safe seating to all school bus passengers in a timely and efficient manner, so that during regular operations all passengers are safely seated.

Highway Safety Guideline #17, “Pupil Transportation Safety,” as issued by the National Highway Traffic Safety Administration, states:

- “(1) Standing while school buses and school-charter buses are in motion should not be permitted. Routing and seating plans should be coordinated so as to eliminate passengers standing when a school bus or school-charter bus is in motion.
- (2) Due to variations in sizes of children of different ages, States and school districts should exercise judgment in deciding how many students are actually transported in a school bus or school-charter bus.
- (3) There should be no auxiliary seating accommodations, such as temporary or folding jump seats in school buses.”

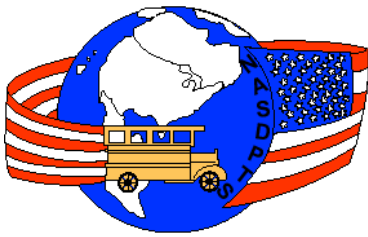
Conclusions:

The National Association of State Directors of Pupil Transportation Services believes all children riding in school buses, or other buses used to transport pupils to and from school or school-related activities, should be properly and safely seated facing forward. In addition, the State Directors Association believes there should be adequate space on the seat for the child to be seated completely within the seating compartment.

Accordingly, the State Directors Association believes States should establish guidelines for determining the “in-use” capacity of school buses and other buses used to transport pupils to and from school and school-related activities. The State Directors Association further believes States should enact legislation to prohibit standees during the regular operation of a school bus or other bus used to transport pupils to and from school or school-related activities.

Issued: October 1999

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National Association of
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POSITION PAPER

**Passenger Crash Protection in School Buses
An Update**

INTRODUCTION: In July 1998, the National Association of State Directors of Pupil Transportation Services issued a Position Paper titled, "Passenger Crash Protection in Large School Buses." Since then, a number of significant actions have taken place. This updated Position Paper provides the latest information on passenger crash protection in all sizes of school buses.

Additionally, Dr. Phyllis Agran, one of the authors of a scientific paper quoted in the July 1998 Position Paper, notified the Association of her objection to the manner in which the paper was used in the Position Paper. Specifically, Dr. Agran noted that permission was not obtained from either her or the American Academy of Pediatrics, holder of the copyright. Furthermore, Dr. Agran noted that excerpts were taken out of context, edited, and presented in a misleading manner to support the State Directors Association's position against lap belts in large school buses. Dr. Agran has made it clear that in no way does the article, "Child Occupant Protection in Motor Vehicles," authored by her and her colleagues, suggest that children would be better protected from occupant injury in school buses if they were unrestrained, as is implied in the July 1998 Position Paper.

It was never the intention of the State Directors Association to violate any copyrights or misstate, take out of context, or misrepresent the information contained in Dr. Agran's scientific paper. The State Directors Association believes Dr. Agran's paper is an excellent work, and regrets any misunderstandings that may have resulted from the reference to her scientific paper in the July 1998 Position Paper.

The July 1998 version of this Position Paper should no longer be utilized.

Introduction

No one questions that school buses are the safest form of highway travel, or that today's school buses provide students with exceptional levels of safety. Despite these facts, the pupil transportation industry constantly is seeking ways to make a safe form of transportation even safer. In this quest, there are times when individuals and organizations will disagree over the potential benefits of certain safety features. This paper provides a discussion of the current status of passenger crash protection in school buses. It also provides comments from safety experts and safety researchers on the appropriateness of lap belts as a means of passenger crash protection for children. A Summary and Conclusions section is presented first, followed by detailed discussions of the wide range of topics and issues involved in the crash protection of children in school buses.

The State Directors Association believes it is important to define the terms that are used in the debate over the best means of providing crash protection to children in school buses. Unless terms that are consistent and unambiguous are used, there may be confusion. Unfortunately, the term "seat belt" means different things to different people.

Rather than using non-definitive terms such as "seat belt," precise terms should be used to define the "belt system" under discussion – it is either a "lap belt" or a "lap/shoulder belt." These terms are easily and completely understood by everyone.

Summary and Conclusions

School buses are the safest form of motor vehicle travel in the United States. While every serious injury or fatality to a student in a school bus is tragic, such instances are few in number each year. Nationwide, on average there are fewer than 10 school bus passenger fatalities each year out of approximately 10 billion student trips. In contrast, more than 800 school-aged children are killed in passenger cars or other private vehicles during normal school hours. It is likely that many of these children were on their way to or from school or school-related activity. In such instances, had these children been in a school bus, they would most likely be alive today.

Based on all of the real-world facts, "compartmentalization" in today's school buses is providing an extremely high level of crash protection for student passengers considering all the types of crashes involving school buses. There are no aggregate statistical data to suggest that a safety problem exists in large school buses that the installation of lap belts would solve. In fact, there is growing concern among safety professionals around the world over the use of lap belts as a form of passenger restraint for young or small children. In August 1998, at a public hearing held by the National Transportation Safety Board, five international experts in the field of motor vehicle occupant crash protection expressed their concern about the appropriateness of lap belts in providing crash protection to small children. The unanimous opinion was that lap belts were not a good means of providing crash protection to small children because small children's bone structure, particularly their hips, is still developing through grade school.

In addition, in November 1998, Mr. Jim Hall, Chairman of the National Transportation Safety Board, spoke to a national conference of school transportation professionals. In his remarks, Chairman Hall stated that, "I personally think it is our turn now to step up to the plate on the issue of lap/shoulder belts in school buses." He went on to state that while "we have to stop being indecisive on this issue," we should "commit to doing it, but let's do it right." Chairman Hall reiterated that "we have to make sure this is done on the basis of solid science. We don't want to simply bolt in lap belts at every seating position." Finally, Chairman Hall stated that "lap belts are probably not the most effective form of restraint for the millions of children transported on school buses."

A number of scientific papers that assess the effects of lap belts and lap/shoulder belts on children involved in real-world motor vehicle crashes have been conducted. While these studies appear to be based exclusively on children in passenger cars and other private vehicles, the conclusions of the studies raise important questions with respect to the appropriateness of lap belts in school buses. For example, the report, "Injuries to Children Restrained in 2- and 3-Point Belts," was presented at the 42nd Annual Proceedings of the Association for the Advancement of Automotive Medicine in October 1998. While the authors of the study did not draw any conclusions about the relative efficacy of lap belts versus lap/shoulder belts, they did point out that "Injury risks to children restrained in 2-point belts have been well described. 'Seat belt syndrome,' associated with the use of 2-point belts, includes contusion of the abdominal wall, fracture of the lumbar spine, and intra-abdominal injury."

The study concluded that, "Children restrained in 3-point belts exhibit a similar pattern of injury to those in 2-point belts, however 3-point belts appear to be protective for the lumbar spine." The authors of this study noted that while it included data on more real-world crashes than previous studies of the effects of 3-point lap/shoulder belts on children, it was still a relatively small study, and excluded belted children who were uninjured in motor vehicle crashes. The absence of data on children using lap or lap/shoulder belts who were uninjured makes it impossible to draw any conclusions about the absolute or relative effectiveness of lap or lap/shoulder belts on children.

The purpose of citing this study is not to suggest that the paper or the authors of the paper believe children are better off unrestrained in motor vehicles. Rather, studies such as this appear to indicate that all types of passenger crash protection devices may have unique consequences for children. The State Directors Association believes it is extremely important to understand the interaction of all types of passenger crash protection devices on the human body. Much is learned through epidemiological studies that are conducted by the medical community. If children or adults are needlessly injured in real-world crashes, such studies can assist in the identification of problems and the development of solutions to those problems.

The development of a better understanding of the types and causes of injuries occurring to passengers in school buses can not be overstated. This information can only be gathered from medical records, either from the hospital or physician that treated the injured child. Without medical information on the type and severity of injury being suffered by school bus passengers in various types of crashes, it is not possible to properly evaluate the relative benefits of different forms of passenger crash protection in terms of preventing or inflicting injuries to children in school buses. Without data on how and when lap belts, or lap/shoulder belts, or "compartmentalization" either

reduce the risk of injury or cause an increased risk of injury to children on school buses, it is inappropriate to suggest changes to current requirements for the crash protection of school bus passengers.

Some have suggested that differences in seat design (such as the seat cushion stiffness) between passenger cars and school buses reduce concerns about lap belt-induced injuries to small children. The State Directors Association believes it is only possible to determine the effect of seat designs on the relationship between lap belts and the skeletal development of children through scientific evaluation, including laboratory testing and evaluations of real-world crashes and medical records.

To that extent, in August 1998, the National Highway Traffic Safety Administration (NHTSA) announced an extensive 2-year research program to consider alternative methods for potentially improving Federal school bus passenger crash protection requirements. In announcing the program, NHTSA reiterated its belief that “compartmentalization” has proven to be an excellent form of school bus passenger crash protection, but believes it is important to develop the necessary data and science to review and evaluate objectively potential improvements in passenger crash protection for the next generation of school buses. The NHTSA research program is designed to determine whether it is technologically feasible and operationally practicable to upgrade the current Federal standards for passenger crash protection in school buses. The research approach is direct – develop data on existing school bus crashes to determine the causes of fatalities and serious injuries; use that data to evaluate existing and alternative passenger crash protection systems in a laboratory test environment; and consider the impact of various passenger crash protection systems on school bus capacity and emergency egress. Based on the results of this research program, the data and science necessary for making informed decisions about the safety of all children in school buses should be available.

Until such time that the research and crash test data support alternative crash protection systems, the State Directors Association continues to support the conclusions reached during the past 20 years by the National Academy of Sciences and the National Transportation Safety Board, and the position of the National Highway Traffic Safety Administration, that there is no supportable need for lap belts in large school buses. In addition, the State Directors Association believes that legislators and regulators, in carrying out their responsibility to establish public policy through laws and regulations, have an obligation to make decisions based on data and science, not emotion and supposition. To do otherwise could result in public policies that improperly use society’s limited resources, and could result in additional injuries and fatalities to school bus passengers, rather than reducing or eliminating them.

The State Directors Association fully supports NHTSA’s announced research program, and believes it is the appropriate mechanism for resolving the current debate about the appropriateness of lap belts in school buses, and to establish the foundation for potential improvements to school bus safety. The State Directors Association has provided suggestions to NHTSA on the scope and content of the research program, and will, to the extent permitted, stay involved in the research program and its results. The State Directors Association has already requested that NHTSA expand the scope of its research program to include all sizes of school buses, based on its concerns about the appropriateness of lap belts as a form of crash protection for young children.

The State Directors Association believes that all interested parties should take an active interest in the NHTSA research program, so as to insure that the program addresses the appropriate issues, and that NHTSA is aware of all existing data relative to pertinent issues involved in passenger crash protection in school buses. Over the years, many studies of school bus transportation have noted that there is a need for more and better data upon which to draw conclusions and make decisions. The NHTSA research program should be structured to collect and analyze the data needed to make informed public policy decisions about passenger crash protection in school buses. Without complete data, there are no bases to support changes to existing school bus safety requirements.

The State Directors Association believes it is inappropriate to consider legislation, at any level, to require lap belts in school buses while the Federal government is conducting research that is designed to develop the next generation of passenger crash protection systems in school buses. Without attempting to pre-judge the outcome of NHTSA's research program, it does not appear that the agency would conclude that lap belts, a 30-year-old technology, were the most effective form of passenger crash protection for school buses for the next century. Rather, with the advancements that have been made in lap/shoulder belt systems and energy absorbing materials and construction techniques, it would appear that NHTSA would propose changes to school bus passenger crash protection utilizing the latest technologies.

While the NHTSA research program is underway, the State Directors Association believes that the pupil transportation industry, parents, state and local legislators, and all other interested parties should join forces in an effort to reduce the deaths and serious injuries to children that, either by choice or circumstance, travel to and from school and school-related activities in private vehicles, in vans that do not conform to Federal safety standards for school buses, in transit vehicles, or who walk or ride bicycles. While there are no exact numbers available, it is clear that hundreds of children are needlessly killed each year as they travel to or from school or a school-related activity in some manner other than a school bus. It is likely that the number of serious injuries to such children is equally high. The State Directors Association believes the most prudent course of action for the next two years is to address the safety issues of children not in school buses. In addition, the safety of children as pedestrians in the school bus loading zone must continue to be addressed. When the Federal government has completed its research, then the focus should return to the best means of providing passenger crash protection to children on school buses.

As a final note, the pupil transportation industry is made up of thousands of people who have the safety of children as their highest priority. Most are parents, also. Whenever there are devices or procedures which have the potential to make pupil transportation even safer, the State Directors Association is at the forefront of the debate. If a device or procedure proves to be beneficial based on all available data and information, the State Directors Association stands ready to provide its support to legislators and regulators.

Background and Related Information

The issue of whether to require “seat belts” in large school buses [those with a gross vehicle weight rating over 10,000 pounds] is a topic that has been studied thoroughly and debated for many years. An important, but often overlooked fact in the debate, is the difference between lap belts and lap/shoulder belts. Until recently, no one has advocated the installation of lap/shoulder belts in large school buses. During the last year, school transportation organizations have expressed their support for studies to determine the engineering feasibility and operational practicability of installing and using lap/shoulder belts for passengers of all ages and in all sizes of school buses. In addition, it is critical to develop an understanding of the interaction of lap/shoulder belts on children of all ages and sizes from a medical perspective.

In general, advocates for lap belts in school buses point to the potential benefits of lap belts in terms of reduced injuries and fatalities in certain types of school bus crashes -- typically side impact and rollover crashes. They also refer to improvements in pupil behavior as the result of lap belt usage. Finally, advocates point to the importance of consistency in teaching children to buckle-up in all types of motor vehicles -- if there are no lap belts in school buses, advocates believe there is an obvious break in the chain of consistency.

Life, however, is filled with numerous inconsistencies that young children and young adults must face. How they face or deal with those inconsistencies depends on how they are presented and explained by parents, highway safety officials, or educators. Children, even the very young, have tremendous capacity to reason and understand. For instance, children learn from infancy that adults are the rule makers, authority figures, and should be obeyed. All their contacts with adults (parents, grandparents, care givers, teachers) reinforce this teaching. However, children are also taught at an early age that some adults are not to be obeyed, such as strangers who offer gifts, auto rides, or attempt to touch children in unacceptable ways.

When appropriately presented, children and young adults can understand that a school bus and an automobile are very different in purpose, design, and construction. And, they can understand that although a lap belt or a lap/shoulder belt are important and appropriate for use while traveling in an automobile, light truck, or van, the passive occupant safety system in school buses, "compartmentalization," is equally appropriate.

Those opposed to the installation of lap belts in large school buses point to a wide variety of data and facts: (1) the safety record of school buses; (2) analyses of all types of real-world school bus crashes; (3) laboratory crash test data; and (4) the potential effects of lap belts on young children.

It is important to realize that lap belts only provide restraint around the hips of a seated individual. Lap/shoulder belts, on the other hand, provide restraint around the hips and across the upper torso of a seated individual.

The potential safety benefits of these two systems are very different. Lap belts, even when properly positioned and tightened, allow full upper torso movement. As a result, a person's head could contact surrounding surfaces at higher impact velocities than if they were unbelted. Lap/shoulder belts restrain the upper torso and, thereby, reduce the likelihood of head contact with a surrounding surface.

It has been suggested that school buses that have wider seat spacing to accommodate the installation of child safety seats will reduce the potential for head contact for passengers utilizing lap belts. While the greater seat spacing would obviously reduce the likelihood of head impacts, not all school buses would be constructed with child safety seat anchorage systems and the resulting wider seat spacing. Additionally, even in school buses that were equipped with child safety seat anchorage systems and wider seat spacing, such anchorage systems and seat spacing would not necessarily be at every row of seats in the school bus.

Safety Record of School Buses

One of the major reasons for the outstanding safety record of school buses is the manner in which they are constructed. As is the case with all motor vehicles sold in the United States, school buses have to meet a stringent series of Federal motor vehicle safety standards designed to provide school bus passengers with high levels of safety should a crash occur. One of those Federal standards, "School Bus Passenger Seating and Crash Protection," establishes minimum occupant crash protection requirements for school buses built after April 1, 1977. For large school buses, the Federal standard requires occupant protection through a concept called "compartmentalization" -- strong, well-padded, well-anchored, high-backed, evenly-spaced seats.

In the late 1960's and early 1970's, research was conducted on how to best provide passenger crash protection to the various sizes of children that ride school buses. The research looked at alternative ways of reducing pupil injuries and fatalities in school buses as they existed at that time. School buses of that era typically had exposed metal seat frames and grab bars on the top of the seats, and the seats had little or no crash energy management or energy absorption capabilities.

Some of the research suggested that improvements in seat structure and energy absorbing padding, along with the installation of lap belts, were needed to improve the safety of children in school buses. However, there were other data and factors that had to be considered in establishing the Federal standards governing school bus construction. One of the most relevant dealt with concerns about whether lap belts would be used. No type of restraint device provides a benefit unless the vehicle occupant actively connects the belts.

In the mid 1970's when the Federal school bus standards were being developed, only a small percentage of occupants in all types of vehicles used the available belt system. This fact suggested that the usage rate of lap belts in large school buses would be equally low. No state or jurisdiction had mandatory belt use laws, as currently exist. As a result, the Federal government looked to a "passive" means of providing passenger crash protection in school buses. A "passive" crash protection requires no action by the vehicle occupant to attain the benefits of the system. For example, air bags, motorized lap/shoulder belt systems, and interior padding require no action by the vehicle occupant to obtain the benefits of the system.

The inherent benefits of a "passive" crash protection system versus an "active" crash protection system are important. First, the benefits of a "passive" system are always there, and require no action by the vehicle occupant. Second, "passive" crash protection systems, particularly those that utilize energy-absorbing structures and padding, provide protection to different sizes of occupants and in various seating positions. The "compartmentalization" concept for passenger crash protection in school buses is a passive crash protection system.

It must be recognized that the research conducted in the 1960's and 1970's was done on school buses that did not meet the safety requirements of modern school buses, those manufactured since April 1, 1977. Thus, it would be inappropriate to consider the results of those tests with respect to the potential effectiveness of lap belts in school buses that meet current Federal safety standards. The crash performance and interior design features of school buses built prior to April 1, 1977, are not comparable to school buses built after that date.

The effectiveness of “compartmentalization” has been confirmed in independent studies by the National Transportation Safety Board and the National Academy of Sciences.

National Transportation Safety Board (Safety Board)

In 1987, the Safety Board completed detailed analyses of 43 serious accidents involving large school buses to evaluate the effectiveness of “compartmentalization.”¹ These crashes included frontal and side impacts, and included a large number of rollover crashes. A Safety Board team of accident investigators reconstructed each crash, evaluated the motion of the occupants, and identified the cause(s) of the injuries/fatalities. For each crash, an evaluation was made of whether the use of lap belts would have made a difference in the injury levels of the school bus occupants.

From a public policy perspective, the Safety Board’s conclusions are extremely important.

- School bus occupant deaths and the serious or worse injuries sustained by survivors were, for the most part, attributable to the occupants’ seating position being in direct line with the crash forces. It is unlikely that the availability of any type of restraint would have improved their injury outcome.
- Lap belt use probably would have made no change in the total number of school bus passengers who died in the crashes investigated ... possibly one more death would have resulted.
- Lap belt use probably would have made no change in the number of surviving school bus passengers with severe or worse injuries.
- At best, lap belt use probably would have reduced somewhat the injuries of less than 8 of the 24 surviving school bus passengers with serious injuries. At worst, seat belts might have increased the injury to almost as many passengers with serious injuries as it improved.
- Lap belt use probably would have worsened the outcome for one-fifth [20%] of the 58 school bus passengers with moderate injuries.

¹ “Crashworthiness of Large Poststandard Schoolbuses,” National Transportation Safety Board, Report Number NTSB/SS-87/01, March 18, 1987. This study was designed to evaluate the effectiveness of the Federal requirements for “compartmentalization” under FMVSS No. 222. As such, it only compared the post-1977 school buses with pre-1977 school buses that were built to Federal requirements. Since there were no Federal requirements for lap belts on either pre-1977 school buses or post-1977 large school buses, it would have been inappropriate to include any crashes involving school buses equipped with lap-belts in this study.

These real-world data clearly show that while lap belts may offer a safety benefit in some instances, in most crashes the installation and use of lap belts would not have changed the injury outcome of the crash. Equally important is the fact that in a significant number of crashes the use of lap belts would have worsened the injury levels. In fact, it appears that in one instance the use of lap belts would have killed a child that would have otherwise survived. When all crashes are considered, it appears from the data that there are no overall benefits of lap belts in large school buses.

Since the Safety Board's study was completed in 1987, there have been a number of school bus crashes that have resulted in fatalities and serious injuries. While each of these crashes and the consequences are tragic, it is important to study such crashes to identify areas for potential safety improvements. Three of the most tragic crashes occurred in Carrollton, Kentucky; Alton, Texas; and Fox River Grove, Illinois.

In Carrollton, 27 occupants of a former school bus died due to fire and smoke inhalation. In Alton, 21 students drowned in a bus that rolled on its side and was totally submerged in water. And, in Fox River Grove, 7 students were killed when their bus was struck by a speeding train. Each of these crashes required immediate, quick action by passengers under extreme conditions, in order to survive. In Carrollton, a gasoline-fed fire spread rapidly through the bus, and provided very little time for evacuation of the crowded bus. In the Alton crash, the Safety Board's investigation report notes that there "was inadequate time for 81 desperate students to escape through the available window openings and rear emergency door. ... Escape was further complicated by dark murky water which obscured vision. ... The 21 students who perished did not have enough time to escape from the bus." In Fox River Grove, the students sitting in the back of the bus saw the train approaching and had only fractions of a second to move from the back of the bus to the front.

In each of these crashes, unlatching lap belts would have required additional time under panic conditions. In Carrollton, the passengers, many of whom were sleeping, were first stunned by a head-on crash with a pickup truck at a speed of over 100 miles per hour, and then had to cope with fire and dense smoke in an effort to escape the burning bus. No one died from trauma-induced injuries. In Alton, the bus was struck by a tractor-trailer, then plunged from a cliff into water, and the students had to escape in murky water while the bus was on its side. Any passengers on the right side of the bus would have been hanging from their seats by the lap belts. Again, no one died as a result of trauma-induced injuries. In Fox River Grove, all of the students in the back of the bus had only milliseconds to get out of their seats and run forward prior to the collision.

There is little doubt that the installation and use of lap belts in these crashes would have resulted in additional fatalities and serious injuries. This fact must be considered in any debate over the potential benefits of lap belts in school buses. Unfortunately, these crashes often are ignored by those who advocate the installation of lap belts in school buses. Instead, advocates for lap belts in school buses tend to base their arguments on selected crashes. For example, a 1996 rollover crash of a school bus in Flagstaff, Arizona, which resulted in five students being ejected from the bus, one of whom suffered serious permanent injuries. Of the 26 other students in the school bus, one also suffered serious permanent injuries. Like all fatalities and injuries to children, these injuries are tragic and everyone wishes they had never happened. However, in making public policy decisions, it is imperative to consider all information on a subject, not just data from selected crashes.

As stated earlier, there have been school bus crashes where lap belts may have offered a safety benefit. However, there are other crashes where the installation and use of lap belts would have resulted in more injuries and fatalities. When the entire range of school bus crashes are considered, the State Directors Association does not believe there is a compelling body of data to support the installation of lap belts in large school buses.

National Academy of Sciences

In 1989, the National Academy of Sciences completed a study at the direction of the United States Congress on “the principal causes of fatalities and injuries to school children riding in school buses and of the use of seat [lap] belts in school buses and other measures that may improve the safety of school bus transportation.” The Academy was directed to “determine those safety measures that are most effective in protecting the safety of school children while boarding, leaving, and riding in school buses.” In its conclusions, the Academy noted that “the overall potential benefits of requiring safety [lap] belts on large school buses are insufficient to justify a Federal requirement for mandatory installation. Funds used to purchase and maintain seat [lap] belts might be better spent on other school bus safety programs and devices that could save more lives and reduce more injuries.” The Academy pointed out that since children are at greater risk of being killed in the school bus loading zone (i.e., while boarding or leaving the bus) than as a passenger in the school bus, “a larger share of the school bus safety effort should be directed to improving the safety of school bus loading zones.”²

One of the often cited conclusions from the Academy’s study is that “seat (lap) belts, when properly used on post-1977 ... school buses, may reduce the likelihood of death or injury to passengers involved in school bus crashes by up to 20 percent.” That estimate was based on a 1986 study of rear seat occupants in passenger cars, only a small minority of which were of school age. It should be noted that at the time the 1986 study was conducted, there were relatively limited amounts of real-world data on the effectiveness of lap belts in the rear seats of passenger cars. Based on the differences in the body sizes of school bus and passenger car occupants, and the importance of proper position and adjustment of lap belts, it is not clear that the “up to 20 percent” effectiveness estimate was accurate with respect to school buses.

Since the mid 1980's, additional and significant real-world data have been obtained on the effectiveness of lap belts for rear seat occupants in passenger cars, primarily since belt usage in motor vehicles has increased dramatically in that time frame. Based on real-world crash data through 1996, NHTSA currently estimates that lap belts in school buses at best would be 5 percent effective in reducing school bus passenger fatalities.

² It should be noted that while improvements have been made in school bus loading zone safety since the National Academy of Sciences’ 1989 report, the greatest safety risk to pupils riding school buses is still as a pedestrian in the school bus loading zone. When all pupil transportation modes are considered, the greatest safety risk to students is as a pedestrian walking to or from school or as a passenger in a private motor vehicle transporting the student to or from school.

Considering those crashes where lap belts would likely exacerbate injuries, NHTSA estimates that lap belts would have no overall effectiveness in school buses. In its conclusions, NHTSA noted that the greatest benefit of lap belts to rear seat occupants of passenger cars was in terms of preventing ejection from the car, typically in rollover crashes. Since fatalities and serious injuries due to ejection from a school bus are relatively rare events, the effectiveness rate of lap belts in passenger cars is not directly applicable to school buses. These NHTSA conclusions were provided at an August 1998 Public Hearing held by the National Transportation Safety Board on Bus Crashworthiness and Occupant Survivability.

Lap Belt Concerns

In addition to the NHTSA comments at the August 1998 Public Hearing, an international panel of experts in the field of motor vehicle occupant crash protection testified about their views and opinions on how best to provide passenger crash protection to children in school buses. Five researchers, representing Australia, Canada, Europe, and the United States were asked about the appropriateness of lap belts in providing crash protection to small children. The unanimous opinion was that lap belts were not a good means of providing crash protection to small children because small childrens' bone structure, particularly their hips, is still developing through grade school.

One of the researchers discussed a passenger car crash where "...two children have become paraplegics in the rear of one vehicle that was struck head-on, because they were wearing lap belts, and they suffered severe injuries to their spine." Another researcher commented that, "The lap belts involve, in my mind, an unsatisfactory compromise." A third stated. "...as regard children, I would never ever recommend using lap belts." A comment by one of the researchers appears to accurately reflect the views of all of the international researchers – "So I think there is a lot to be considered before we wave our arms and say, 'Lap belts are the answer'."

In addition to the potential for a lap belt to cause internal injuries to small children, lap-belted school bus passengers also risk more severe head and neck injuries in crashes. Unlike passenger cars where there may be a significant amount of space between the rear seat and the front seat, in school buses the seat spacing has been significantly reduced by design. In 1985, Transport Canada issued a report on a series of crash tests it conducted to examine the outcome of lap-belted test dummies in simulated frontal crashes. These tests indicated that lap-belted test dummies in school buses received more severe head and neck injuries than unbelted test dummies in severe frontal crashes. At the time, several individuals questioned the test procedures and results of the Transport Canada study. However, no additional testing was done. In a 1997 series of crash (sled) tests conducted by NHTSA, the same results were found – lap-belted test dummies in school bus seats received higher head injury measures than unbelted test dummies. These 1997 tests appear to confirm the earlier study by Transport Canada.

In a November 2, 1998, speech before the annual conference of the National Association for Pupil Transportation, Jim Hall, Chairman of the National Transportation Safety Board spoke about school bus passenger crash protection. In his comments, Chairman Hall stated that, "I personally think its our turn now to step up to the plate on the issue of lap/shoulder belts in school buses." [Emphasis added.] Chairman Hall also stated that, "It is time for the school pupil transportation network of this country to call on the manufacturers and regulators to make this happen, rather than waiting for it to happen."

While these comments may be interpreted that Chairman Hall personally believes lap/shoulder belts should be installed in school buses right away, such a position is not supported by other statements he made. Specifically, Chairman Hall stated that while “we have to stop being indecisive on this issue,” we should “commit to doing it, but let’s do it right.” Chairman Hall reiterated that “we have to make sure this is done on the basis of solid science. We don’t want to simply bolt in lap belts at every seating position.” Finally, Chairman Hall stated that “lap belts are probably not the most effective form of restraint for the millions of children transported on school buses.”

While lap/shoulder belts in school buses may be one of the most logical technologies to evaluate, there is a significant amount of research to conduct before drawing conclusions about the efficacy of lap/shoulder belts in school buses. For example, the necessary science on how to design and install lap shoulder belt systems in school buses, such that they would be effective in reducing injuries and fatalities to all sizes of pupil passengers, has recently been initiated by several companies. The importance of developing the necessary data and science to determine the proper location of the shoulder belt anchorage point, so that it allows the shoulder belt to be in the proper location across the chest of every size child, can not be overlooked. There is considerable evidence that improper shoulder belt positioning is a significant safety problem in other types of motor vehicles. If we rush to install lap/shoulder belts in school buses without developing the necessary data and science, we may very well establish policies that result in a negative effect on the safety of children in school buses.

Additional Comments on Lap and Lap/Shoulder Belts

At the 1998 Annual Conference of the Association for the Advancement of Automotive Medicine, several presentations were made concerning injuries to children in motor vehicle crashes. In each case, it appears that the crashes investigated were confined exclusively to passenger vehicles. No school buses were included.

One of the papers³ compared injuries to children restrained in lap belts and lap/shoulder belts. The authors studied the injuries to 98 children 15 years old or younger, half of which had been restrained in 2-point lap belts and the other half restrained in 3-point lap/shoulder belts. Seventy two percent of the children in the study were between the ages of 5 and 9 years -- the ages of children who typically ride school buses. The paper noted that, “Injury risks to children restrained in 2-point belts have been well described. ‘Seat belt syndrome,’ associated with the use of 2-point belts, includes contusion of the abdominal wall, fracture of the lumbar spine, and intra-abdominal injury.”

³ “Injuries to Children Restrained in 2- and 3-Point Belts,” Catherine S. Gotschall, Allison I. Better, Dorothy Bulas, and Martin R. Eichelberger of the Children’s National Medical Center, and Frances Bents and Mike Warner of Dynamic Sciences, Inc., October 1998. 42nd Annual Proceedings of the Association for the Advancement of Automotive Medicine. This paper includes an extensive list of references which undoubtedly provide excellent information on crash protection for children.

The study concluded that, “Children restrained in 3-point belts exhibit a similar pattern of injury to those in 2-point belts, however 3-point belts appear to be protective for the lumbar spine.” The authors of this study noted that while it included data on more real-world crashes than previous studies of the effects of 3-point lap/shoulder belts on children, it was still a relatively small study, and excluded belted children who were uninjured in motor vehicle crashes.

The absence of data on children using lap or lap/shoulder belts who were uninjured makes it impossible to draw any conclusions about the absolute or relative effectiveness of lap or lap/shoulder belts on children. The authors did not believe it was possible “to meaningfully compare the relative efficacy of the two restraint systems.”

The purpose of citing this study is not to suggest that the paper or the authors of the paper believe children are better off unrestrained in motor vehicles. Rather, studies such as this appear to indicate that all types of passenger crash protection devices may have unique consequences for children. The State Directors Association believes it is extremely important to understand the interaction of all types of passenger crash protection devices on the human body. Much is learned through epidemiological studies that are conducted by the medical community. If children or adults are needlessly being injured in real-world crashes, such studies can assist in the identification of problems and the development of solutions to those problems.

While this study and others appear to be based exclusively on children in passenger cars and other private vehicles, the conclusions point out legitimate issues that must be fully understood with respect to the appropriateness of lap belts or lap/shoulder belts in school buses. Some have postulated that differences between school bus seats and passenger car seats are significant and that these differences reduce concerns about belt-induced injuries to small children. Others question whether there is scientific evidence that demonstrates the effects of seat designs on the relationship between lap and lap/shoulder belts and a child’s skeletal development. This is the type of information that is expected to be developed during NHTSA’s school bus passenger crash protection research program, which is discussed later in this paper.

Types of School Bus Crashes

Nationwide, the National Safety Council estimates that approximately 30,000 crashes occur each year in which a school bus is involved. Less than 7,000 of these crashes involve “injuries” to school bus occupants.⁴ Most of these injury-involved crashes are minor in nature, however, serious school bus crashes do occur. When a serious crash occurs, the school bus passengers are mostly uninjured or receive minor to moderate injuries.⁵ These serious crashes involve frontal, angular, side, rear, and rollover crashes.

⁴ The National Safety Council recently determined that the data it collects from individual states are inconsistent and unreliable indicators of actual injuries to school bus occupants. Accordingly, school bus occupant injury data will not be estimated by the National Safety Council in the future.

⁵ According to mid-1980’s state crash data reviewed by the National Academy of Sciences, only 5 percent of school bus passenger injuries are incapacitating (e.g., severe lacerations, broken limbs, head/chest injuries). A 1997 study of state crash data by NHTSA showed only 4 percent of school bus passenger injuries were serious, severe, or critical.

Unfortunately, there are crashes that result in serious injuries or fatalities to school bus passengers. Most of these crashes are very severe, and as reported by the National Transportation Safety Board in its 1987 report:

“schoolbus occupant deaths and the serious or worse injuries ... were, for the most part, attributable to the occupant’s seating position being in direct line with the crash forces. It is unlikely that the availability of any type of restraint [emphasis added] would have improved their injury outcome.”

With respect to minor and moderate injuries, as discussed earlier, the Safety Board’s study found that lap belt use would have worsened the injury levels for 20 percent of the students receiving moderate injuries. It was not possible to judge the effect of lap belt use on those passengers that only received minor injuries.

Obviously, there are some school bus crashes where lap belts may have reduced or eliminated injuries and/or fatalities. As was done in the National Transportation Safety Board’s 1987 study, it is possible to assess what injuries may have been mitigated because of lap belts. However, it is much more difficult to suggest what injuries may have occurred as the result of the use of a lap belt, and whether those injuries would have been more severe than the injuries that were mitigated.

In order to evaluate objectively the potential safety benefit of any device, all aspects of the device must be studied and understood. It is not legitimate to consider isolated or anecdotal information and ignore a larger body of information and knowledge. Similarly, it is not legitimate to rely on hypothetical, theoretical, and/or laboratory information when real-world information exists.

Other Organizations

There is unanimity among a wide range of national organizations⁶ that are charged with establishing national motor vehicle and highway safety policy that “compartmentalization” is effective in school buses and that lap belts should not be required in school buses. However, as with any controversial issue, there are organizations that believe there should be lap belts in school buses. These include a number of medical associations and state-level organizations. These organizations express their support for lap belts in school buses, but generally publish little or no data or detailed analyses to explain and justify their position, or do not consider all of the real-world data discussed above.

In the best interest of the safety and health of children, it would be beneficial if organizations that take a position on safety matters dealing with pupil transportation provided a detailed discussion and rationale for their position. This should include all of the facts, statistics, and analyses upon which the position is based, and should include a detailed discussion of why opposing views are incorrect or inappropriate.

⁶ These organizations include the National Highway Traffic Safety Administration, the National Transportation Safety Board, the National Safety Council, the National Academy of Sciences and others.

Some organizations and individuals have mis-characterized the conclusions from the 1989 National Academy of Sciences' report discussed earlier. In that report, the Academy concluded "seat (lap) belts, when properly used on post-1977, Type I school buses, may reduce the likelihood of death or injury to passengers involved in school bus crashes by up to 20 percent." [Emphasis added]

According to a March 27, 1998, Florida Senate Staff Analysis and Economic Impact Statement, the Florida PTA utilized the National Academy of Sciences' report to assert "that seat belts⁷ on school buses would improve safety by 20 percent." [Emphasis added] Similarly, a citizens' group in Minnesota, People Advocating Seatbelt Safety, also claimed that "50% usage would reduce deaths and injuries by 20%." [Emphasis added]

There is a significant difference between the National Academy of Sciences' conclusion that says "may" and "by up to" and Florida PTA's and Minnesota's claim of "would." This is particularly important since the data used by the National Academy of Sciences were based on adults in the back seat of passenger automobiles, not children in school buses, as discussed earlier. Also, the 1989 data used by the National Academy of Sciences are outdated. The most recent real-world data indicate that at best lap belts would be 5 percent effective in reducing fatalities, but most likely would have no overall effectiveness.

Lap Belt Requirements in New York and New Jersey

Currently, there are two states that require the installation of lap belts in large school buses. New York has required the installation in all new school buses purchased after June 30, 1987. However, New York does not have a law requiring students to use the lap belts. Such requirements are left up to the individual school districts. Recent information provided by New York indicates that only 26 (4 percent) of New York's 709 public school districts have adopted policies which require all students to wear the available lap belts. Those school districts report an estimated 88 percent of elementary, 71 percent of middle, and 47 percent of high school students wear the available lap belts.

New Jersey passed a law in 1992 requiring the installation and use of lap belts in all new large school buses. While there is no official data on lap belt usage, New Jersey estimates that 75 percent of students wear the available lap belts, and that elementary-aged children use them more than high school-aged children.

The National Transportation Safety Board attempted to conduct a study of the effectiveness of lap belts in school buses in New York and New Jersey several years ago, however, the study has not generated any useable information since (thankfully) there have not been any serious crashes of school buses equipped with lap belts. As a result, there is no body of real-world data involving all types of serious school bus crashes that support the position that lap belts provide additional levels of crash safety in the aggregate over the safety provided by "compartmentalization."

⁷ The term "seat belt" on school buses as used by the Florida PTA is interpreted to mean lap belts, since that was the type of belt system considered by the National Academy of Sciences in its study.

Potential Changes to School Bus Passenger Crash Protection

In August 1998, NHTSA announced an extensive 2-year research program to consider improvements to school bus passenger crash protection requirements. In announcing the program, NHTSA reiterated its belief that “compartmentalization” has proven to be an excellent form of child crash protection, but believes it is important to develop the necessary data and science to develop the next generation of passenger crash protection in school buses. The NHTSA research program is designed to determine whether it is technologically feasible and operationally practicable to upgrade the current Federal standards for passenger crash protection in school buses. The research approach is direct – develop data on existing school bus crashes to determine the causes of fatalities and serious injuries; use that data to evaluate existing and alternative passenger crash protection systems in a laboratory test environment; and consider the impact of various passenger crash protection systems on school bus capacity and emergency egress. Based on the results of this research program, the data and science necessary for making informed decisions about the safety of all children in school buses will be available.

The State Directors Association fully supports the NHTSA research program, and notes that it contains much of the content and logic suggested by the Association in July 1998. The State Directors Association has requested that NHTSA expand the scope of its research program to include all sizes of school buses, based on the Association’s concerns about the appropriateness of lap belts as a form of crash protection for young children. The State Directors Association maintains its belief that the two most logical options to consider in any research program on the subject of passenger crash protection in school buses are: (1) lap/shoulder belts for all designated seating positions; and (2) upgrades to “compartmentalization.”

Lap/Shoulder Belts

As stated earlier, there is unanimity within the motor vehicle safety community that lap/shoulder belts offer superior levels of occupant crash protection over lap belts only. At the current time, there is little, if any, information available on the technological feasibility, operational practicability, potential benefits, and other potential positive and negative concerns associated with the installation of lap/shoulder belts in school buses. The State Directors Association believes it is important to develop as much information as possible on lap/shoulder belts in school buses in the course of the NHTSA research program. This includes assessing engineering issues associated with installing lap/shoulder belts in school buses, given the Federal requirements for “compartmentalization,” and whether some of the Federal requirements would have to be eliminated or modified. It also includes an understanding of the potential injury risks to small children from lap/shoulder belts. As discussed earlier, the medical community regularly conducts epidemiological studies of motor vehicle crashes involving children, and such studies may provide important insight into the relative safety of various forms of passenger crash protection in school buses.

The development of a better understanding of the types and causes of injuries occurring to passengers in school buses can not be overstated. This information can only be gathered from medical records, either from the hospital or physician that treated the injured child. Without medical information on the type and severity of injury being suffered by school bus passengers in various types of crashes, it is not possible to properly evaluate the relative benefits of different forms of passenger crash protection in terms of preventing or inflicting injuries to children in school buses. Without data on how and when lap belts, or lap/shoulder belts, or “compartmentalization” either reduce the risk of injury or cause an increased risk of injury to children on school buses, it is inappropriate to suggest changes to current requirements for the crash protection of school bus passengers.

Since it is unrealistic to expect all school bus passengers would wear the lap/shoulder belts, and wear them correctly, it is important to identify potential safety issues to the unrestrained school bus passengers, who may not have the benefits of “compartmentalization” if lap/shoulder belts were installed at all designated seating positions. The State Directors Association does not believe the safety of those children, who either can not or do not want to utilize an available lap/shoulder belt, should be compromised.

Upgraded Compartmentalization

Unlike lap/shoulder belt systems which require school bus passengers to buckle up, “compartmentalization” is a passive passenger protection system. It may be possible to make school buses even safer through improvements in energy-absorbing materials and the use of energy absorbing construction at seating locations.

The Summary and Conclusions section appears at the beginning of this paper.

***This
Could
Save
Your
Child's
Life***



**A School Bus
Handrail
Handbook**

This Could Save Your Child's Life

A School Bus Handrail Handbook

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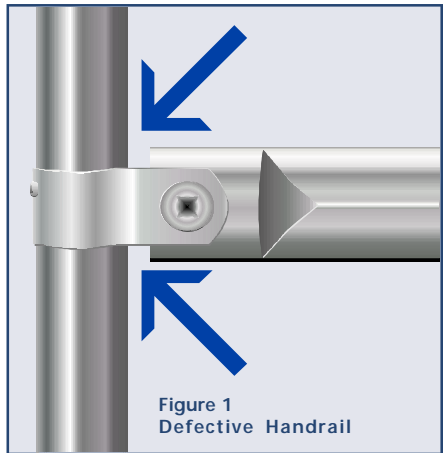
The Issue

Across the United States, children are being injured or killed when their clothing or accessories are caught in their school bus's handrail or door as they exit the school bus. As a result, they may fall and be violently dragged by the bus and run over by its rear wheels.

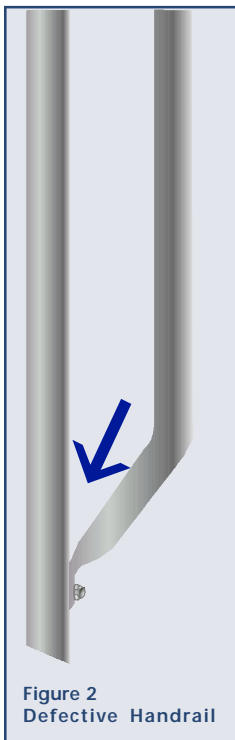
The most common piece of clothing that can be snagged on the handrail is a jacket with a drawstring at the waist. These drawstrings commonly have a large bobble or knot at the ends that can become lodged in the handrail. However, other articles of such as scarves, long straps on backpacks, or dangling key chains can also be snagged on the handrail.

Handrail Mechanics

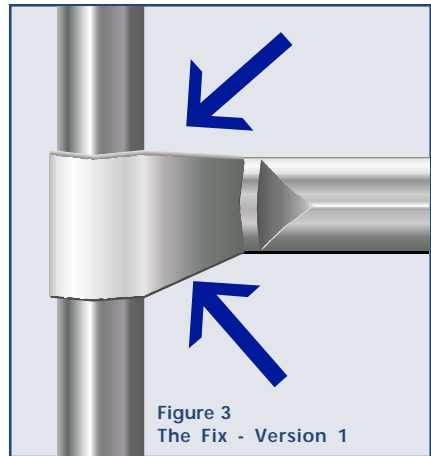
School bus handrails have had the same basic design for more than 30 years. However, with the current change in fashion toward oversized and baggy clothing, handrail designs



have contributed to tragic and avoidable injuries and deaths. Typical handrail designs that have the potential for snagging are illustrated in Figures 1 and 2.



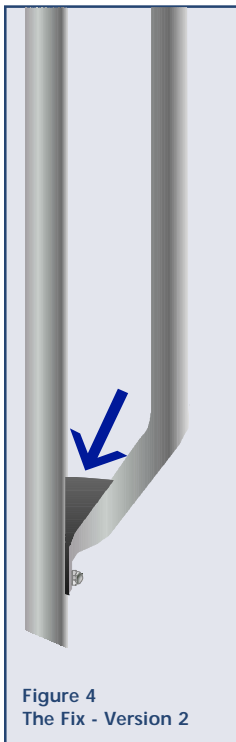
School bus manufacturers have taken extraordinary and costly steps to remove snagging hazards from school bus entrances. More than 400,000 school buses have been recalled and manufacturers have absorbed the cost of the repairs. In most cases, a simple spacer can be added to the existing handrail eliminating the potential for snagging. In other cases, manufacturers have redesigned the handrail. Figures 3 and 4 illustrate handrails that have been modified.



The School Bus Driver's Role

The school bus driver is a trained professional concerned with getting children to school and returning them home safely. Driving a school bus is a demanding task. There is a lot of activity in and around the bus. The bus driver must be aware of ever-changing traffic conditions, the children on the bus, and the children who enter and exit at each school bus stop. Compounding this already complex situation is the need for the driver to maintain the school bus schedule.

The major reason for injury and death due to handrail snagging incidents is the driver's failure to notice that the child's drawstring has become snagged. The driver should observe all children, especially those with long drawstrings, oversized or baggy clothing, or other items that may become snagged in handrails, as they exit. Additionally, to ensure safety at each stop, the driver should be certain that each child has completely exited the bus and cleared

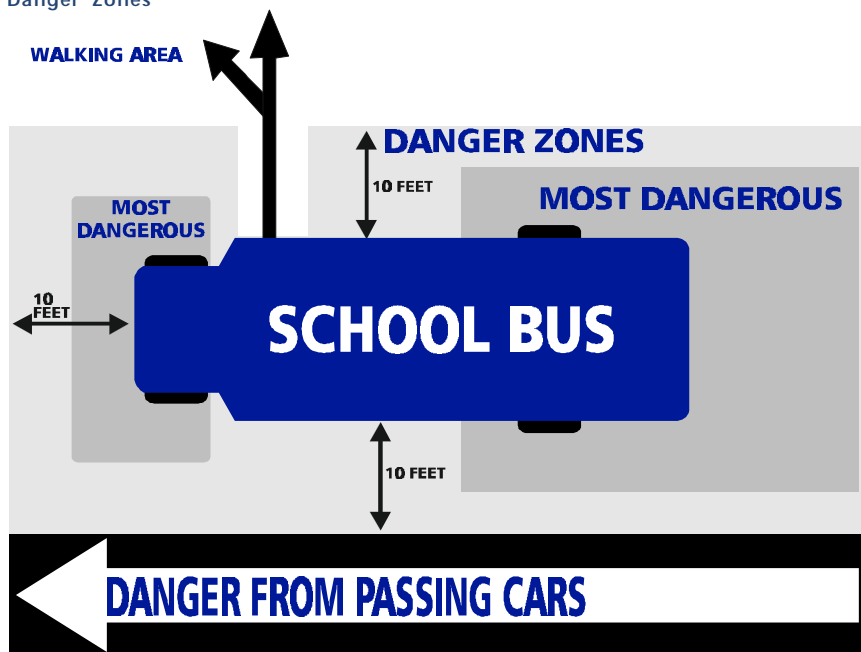


the danger zones before closing the door and moving the vehicle. The driver should secure the bus and check around and underneath the bus if there is a question of whether a child has moved safely away from the bus. Finally, the driver must be alert for warnings as the bus pulls away. In many of the snagging incidents that have occurred to date, someone inside or outside the bus attempted to warn the driver that a child was being dragged by the bus.

Children's and Parents' Responsibilities

Children and parents must also accept some responsibility for ensuring that a snagging incident does not occur. While oversized and baggy clothing may represent the latest fashion trend, try to avoid choosing any article that may become caught in a school bus handrail or door. The Consumer Product Safety Commission recommends that drawstrings be no more than three inches in length at the waist. Parents should caution children about attaching key rings and other items to their backpacks as these too may become caught on the handrail or door.

Figure 5
Danger Zones



While not directly related to snagging, children should also be warned to stay out of the school bus danger zones. (Figure 5). The danger zones are areas around the bus where it is difficult for the driver to see. Children should be taught not to pick up objects they drop near the bus. The driver may not see the child. If the child does drop something, the child should inform the bus driver and follow the driver's instructions.

Parents should check with the school principal, or local school bus transportation director to determine if the school bus carrying their children has been recalled for a handrail problem and, if so, whether it has been repaired. Parents are encouraged to check with the school system when their child's safety is in question.

School Administrators Must Be Active

School administrators must also play an active role in taking steps to eliminate handrail snagging injuries and deaths. All school buses must be inspected to determine if potential snagging areas exist.

Administrators should contact NHTSA's Auto Safety Hotline at 800-424-9393 to find out which buses have been recalled for this or other problems.

If a school bus with a defective handrail is found, the bus should be taken out of service immediately and kept from service until proper repairs have been made. All manufacturers' recalls should be given high priority and addressed quickly.

School officials should also design training curricula for school bus drivers, teachers, and parent organizations. Driver training should be implemented to reinforce safe loading and unloading practices. Teachers and parent organizations should be informed of the potential for snagging situations and their role in injury prevention.

The Handrail Inspection Tool and Procedure

The inspection tool (Figure 6) is inexpensive and the procedure for detecting potentially fatal handrail designs is quite simple. The inspection tool is a standard 1/2" hex nut measuring 3/4" across the flats. This nut is tied to 1/8" thick cotton cord measuring 36" in length with overhand knots. The drawstring should have a minimum length of 30" when tied to the nut and attached so that a pull of at least ten pounds does not separate the nut from or break the drawstring.

Steps to conduct a handrail inspection are:

- Stand on the ground outside of the bus
- Drop the inspection tool between the handrail and step well wall, simulating the typical way students exit the bus
- Draw the inspection tool through the handrail in a smooth, continuous slow motion
- Repeat this procedure several times (minimum of three times)

Note: It is important to drop the inspection tool over the handrail in such a way as to simulate a child exiting the bus. This is a **drop and drag** test. Do not create a snagging situation by placing the nut in an area that would not be exposed to a drawstring or other articles.

Inspection Results

- Take the bus out of service and repair it if the inspection tool catches or snags anywhere on the handrail.
- If the nut separates from the drawstring or the drawstring breaks, reassemble the tool and retest. If the inspection tool pulls freely without catching or snagging, the bus should not be rejected.

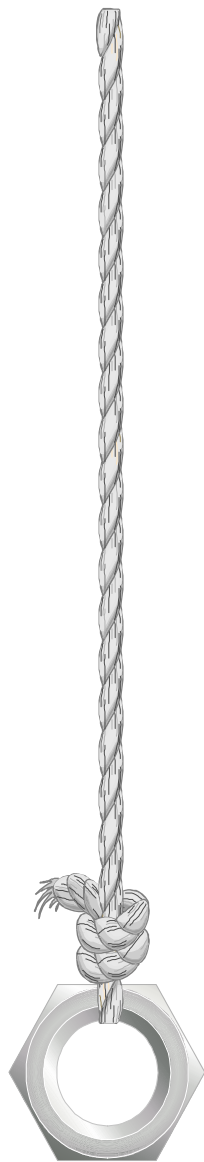


Figure 6
The Tool

Reminder

It is important to inspect all school buses including those that have been repaired. If you have questions, contact NHTSA's Auto Safety Hotline at the number listed below.

School buses are the safest way to transport children to and from school. By working together we can ensure that these vehicles' outstanding safety record will not diminish. If you have questions concerning school bus handrails or other school bus safety related issues, contact your local school district or state director of pupil transportation or call NHTSA's Auto Safety Hotline at 800-424-9393.

Guideline for Safe Transportation of Pre-school Age Children in School Buses

National Highway Traffic Safety Administration
February 1999

Introduction

School age children transported in school buses are safer than children transported in motor vehicles of any other type. Large school buses provide protection because of their size and weight. Further, they must meet minimum Federal motor vehicle safety standards (FMVSSs) mandating compartmentalized seating, improved emergency exits, stronger roof structures and fuel systems, and better bus body joint strength.

As more pre-school age children are transported to school programs, often in school buses, the public is increasingly asking the National Highway Traffic Safety Administration (NHTSA) about how to safely transport them. To help answer these questions, NHTSA conducted crash testing of pre-school age size dummies in school bus seats. The test results showed that pre-school age children in school buses are safest when transported in child safety restraint systems (CSRSs) that meet FMVSS 213, Child Restraint Systems, and are correctly attached to the seats.

Based on its research, NHTSA recommends pre-school age children transported in school buses always be transported in properly secured CSRSs. In partial response to questions from school (and child care) transportation offices, this Guideline seeks to assist school and other transportation managers in developing and implementing policies and procedures for the transportation of pre-school age children in school buses.

Note: The proper installation of CSRSs necessitates that a school bus seat have safety belts or other means of securing the CSRS. NHTSA recommends that lap belts or anchorages designed to meet FMVSS 225, Tether Anchorages and Child Restraint Anchorage Systems, be voluntarily installed to secure CSRSs in large school buses.

RECOMMENDATIONS FOR THE TRANSPORTATION OF PRE-SCHOOL AGE CHILDREN IN SCHOOL BUSES

When pre-school age children are transported in a school bus, NHTSA recommends these guidelines be followed:

- (1) Each child should be transported in a Child Safety Restraint System (suitable for the child's weight and age) that meets applicable Federal Motor Vehicle Safety Standards (FMVSSs).
- (2) Each child should be properly secured in the Child Safety Restraint System.

- (3) The Child Safety Restraint System should be properly secured to the school bus seat, using anchorages that meet FMVSSs.

Child Safety Restraint System Defined

A Child Safety Restraint System is any device (except a passenger system lap seat belt or lap/shoulder seat belt), designed for use in a motor vehicle to restrain, seat, or position a child who weighs less than 50 pounds.

Child Safety Restraint Systems Guideline

1. Child Safety Restraint System Specifications

The provider of the CSRS should ensure:

- Each pre-school age child to be transported has a CSRS appropriate for the child's weight, height and age.
- Each CSRS meets all applicable FMVSSs (look for the manufacturer's certification of the label attached to the system).
- Each CSRS has been registered with the CSRS's manufacturer to facilitate any recalls the manufacturer might conduct.
- If the CSRS is the subject of a recall, any necessary repairs or modifications have been made to the manufacturer's specifications.
- Each CSRS is maintained as recommended by its manufacturer, including disposal of any CSRS that has been involved in a crash.

2. Proper Securement

The transportation provider should ensure:

- The CSRS is used and secured correctly in the school bus.
- Each child is secured in CSRSs according to manufacturer's instructions.
- All CSRS attachment hardware and anchorage systems meet FMVSS 210, Seat Belt Assembly Anchorages or FMVSS 225, Tether Anchorages and Child Restraint Anchorage Systems.
- School bus seats designated for CSRSs meet FMVSS 225, or include lap belts that meet FMVSS 209, Seat Belt Assemblies, and anchors that meet FMVSS 210 (designed to secure adult passengers or CSRS).

- Personnel responsible for securing CSRSs onto school bus seats and children into CSRSs are properly trained and all personnel involved with CSRSs are provided up-to-date information and training.
- When transported in the school bus, pre-school age children are supervised according to their developmental and functioning level.

3. School Bus Seats Designated for Child Safety Restraint Systems

The transportation provider should ensure:

- The school-bus seats designated for CSRSs are located starting at the front of the vehicle to provide drivers with quick access to and a clear view of the CSRS occupants.
- CSRS anchorages on school bus seats should meet all applicable FMVSSs.
- When ordering new school buses, the maximum spacing specified under FMVSS No. 222, School Bus Passenger Seating and Crash Protection, (within 24 inches from the seating reference point) is recommended for seats designated for CSRSs to provide adequate space for the CSRS.
- The combined width of CSRS and/or other passengers on a single seat does not exceed the width of the seat.
- If other students share seats with the CSRSs, the CSRSs are placed in the window seating position.

4. Retrofitting School Buses

The transportation provider should ensure:

- Existing school bus seats should only be retrofitted with lap belts or child restraint anchorages as instructed by the school bus manufacturer.
- When a school bus is retrofitted with a seat to allow for proper securement of a CSRS, instructions obtained from the school bus or seat manufacturer on how to install the seat and restraint systems should be followed.
- When a school bus is retrofitted, the bus owner should ensure that seat spacing is sufficient for the CSRS to be used.

5. Evacuation

The transportation provider should ensure:

- The establishment of a written plan on evacuating pre-school age children and other passengers in CSRSs in the event of an emergency. This written plan should be provided to drivers, monitors, and emergency response personnel. The plan should explicitly state how children (both in and out of the CSRS) should be evacuated from the school bus.
- Evacuation drills are practiced on a scheduled basis, at least as often as that required for the school system's school-aged children.
- All personnel involved in transporting children are trained in evacuation and emergency procedures, including those in the written school bus evacuation plan.
- All school buses carrying children in CSRS carry safety belt cutters that are accessible only to the driver and any monitors.
- CSRSs are not placed in school bus seats adjacent to emergency exits.
- Local emergency response teams are provided copies of the written school bus evacuation plan, including evacuation of pre-school age children. Emergency response personnel should be invited to participate in evacuation drills.

6. Other Recommendations

- The school transportation provider should establish a policy on whether they or the child's guardian must supply a CSRS to be used on a school bus. School bus purchases should be based on the needs of a projected student population, taking into consideration projected ages, sizes, and other characteristics of the students, including any special needs, and whether pre-school age children or medically fragile students will be transported.
- Specified procedures should be established for loading and unloading children in CSRSs.
- Procedures should be established for the periodic maintenance, cleaning, and inspection for damage of CSRSs. Procedures should be established to train personnel involved in direct service delivery of infants, toddlers, and pre-school children on the physical day-to-day handling of these young children and means to handle potential exposure to contagious and communicable diseases.
- When school bus procedures are established, it should be noted that some children in CSRSs may have special needs, including medical fragility that must be addressed on a child-by-child basis.

Appendix H

Transportation Forms

Form	Description	Form/Report Sent to Schools	Completed Form/Report Due to County	Completed Form/Report Due to OPI
TR-1	Bus Route Information (Elementary)	August (Sept. 10)	October 1	October 15
	Bus Route Information (High School)	August (Sept. 10)	December 1	December 10
TR-2	Bus Rider List (HS Count 5-days start Nov. 14)	August	After Nov. Count	
TR-4	Individual & Isolated Contract	March/April	Fourth Monday in June	Fourth Monday in July
TR-5	1st Sem. Individual Transportation Claim	Jan. 15	Feb. 1	Feb. 15
	2nd Sem. Individual Transportation Claim	May 1	May 10	May 24
TR-6	1st Sem. Bus Claim	Jan. 15	Feb. 1	Feb. 15
	2nd Sem. Bus Claim	May 1	May 10	May 24
TR-13	1st Sem. Bus Inspections (Highway Patrol must inspect prior to beginning of semester)	Late May	As Completed	As Completed
	2nd Sem. Bus Inspections (Highway Patrol must inspect before January 31)	Early November	As Completed	As Completed
TR-35	Bus Driver Certificates	As needed	Whenever Driver Renews	Whenever Driver Renews
TR-23	Bus Driver List - 1st Sem.	November		By Feb 1
	Bus Driver List - 2nd Sem.	April		By May 25
	1st Semester Reimbursement	March 25 (end of March)		
	2nd Semester Reimbursement	June 15 (end of June)		
Budget Worksheets		As Needed		

APPENDIX H

Introduction

In order to have a uniform and equal provision of transportation by all districts in the state of Montana, the superintendent of public instruction shall prescribe rules and forms for the implementation and administration of the transportation policies adopted by the board of public education.

Included in this section of the manual:

- The Transportation Forms Calendar

Forms and Descriptions:

- TR-1 Combined School District Application for Registration of School Bus & State Reimbursement

This form provides information for all of the buses used for pupil transportation in each school district. The form allows the district to allocate percentage of use to elementary and high school districts. The TR-1 is the basis, not only for bus specific information, but it also indicates how many students (eligible and ineligible) ride the bus, how long the route is, who owns the bus and what kinds of services are provided.

- TR-2 Pupil List for Buses Transporting Students

This form is to be used in conjunction with Form TR-1, School District Application for Registration of School Bus and State Reimbursement. The district must retain this form for audit purposes.

- TR-4 Individual Transportation Contract

This form provides all of the information required for Individual and Isolated contracts to ensure appropriate reimbursement to parents or individuals that transport eligible transportees to a bus stop or to school.

- TR-5 School District Claim for State Reimbursement for Individual and Isolated Transportation

The superintendent of public instruction prepares this form in February (1st Semester) and May (2nd Semester). The form is a summary of each districts Individual and Isolated Transportation Contracts. The district is required to indicate how many days the student was transported.

- TR-6 School District Claim for State Reimbursement for School Bus Transportation

The superintendent of public instruction prepares this form in February (1st Semester) and May (2nd Semester). The form is a summary of each school districts school bus routes. The district is required to indicate how many days the bus operated and the bus driver social security number.

- TR-13 Montana Highway Patrol School Bus Inspection Form

This completed form is required in accordance with, MCA § 20-10-101. All vehicles that are not approved on the first inspection must be reinspected by the Highway Patrol as soon as all defects are corrected. A school bus must comply with the bus standards established by the board of public education as verified by the department of justice's semiannual inspection of school buses and the superintendent of public instruction. **REMEMBER, only those school buses approved by the inspecting patrolman shall receive state reimbursement.**

- TR-35 Montana School Bus Driver Certificate

School bus drivers are required to comply with qualifications set forth In MCA § 20-10-103, and ARM § 10.7.111 and to file a certificate of compliance with the County Superintendent of Schools.

This certificate indicates that the driver:

- has a minimum of five years licensed driving experience, and is not less than 18 years of age;
- has a drivers license with commercial vehicle operator's endorsement;
- holds a valid basic first aid certificate; and
- has filed a satisfactory medical examination report.

The certificate expires when any of the required documents reach the expiration date indicated on the certificate. Reimbursement will not be made for any days that the certificate is expired. The only exception is for new drivers, which allows 60 days to obtain the basic first aid certificate. Once the certificate expires, a new certificate must be submitted when the requirements are met.

- Medical Examination Report for Commercial Driver Fitness Determination
- Medical Examiners Certificate

The Department has updated the required Medical Examination Report for Commercial Driver Fitness Determination. A copy of the new form is included with this handbook.

- Individual Contract (TR-4) Tips and Reminders

This is a handy little document that will help with most of the questions that a district might have regarding Individual and Isolated Transportation Contracts.

Appendix I

MINI GUIDE TO THE FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND RELATED REGULATIONS

Prepared by
School Bus Manufacturers
Technical Council
April 2000

MINI GUIDE to the FEDERAL MOTOR VEHICLE SAFETY STANDARDS and RELATED REGULATIONS (issued as of April 1, 2000)

THE PUBLIC LAW DEFINITIONS STANDARDS OTHER REGULATIONS AND REPORTS FEDERAL MOTOR CARRIER SAFETY REGULATIONS CANADIAN STANDARDS

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1-800-585-0340

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FOREWORD

In order to reduce traffic accidents, and deaths and injuries resulting from traffic accidents, the National Traffic and Motor Vehicle Safety Act¹ was enacted on September 9, 1966. This law directs the U.S. Secretary of Transportation to establish Federal Motor Vehicle Safety Standards (FMVSSs), to which manufacturers of passenger cars, multipurpose passenger vehicles, trucks, trailers, buses, school buses, motorcycles, and items of motor vehicle equipment must conform and certify compliance.

The law defines a FMVSS as a "minimum standard for motor vehicle performance, or motor vehicle equipment performance, which is practicable, which meets the need for motor vehicle safety, and which provides objective [test] criteria." The law further defines motor vehicle safety to mean the performance of motor vehicles or items of motor vehicle equipment in such a manner "that the public is protected against unreasonable risk of accidents occurring as a result of the design, construction, or performance of motor vehicles and is also protected against unreasonable risk of death or injury in the event accidents do occur."

The first FMVSSs became effective for vehicles manufactured on or after January 1, 1968, for sale or use in the United States. Additional standards have been promulgated since then, and nearly all have been updated or amended. Several have been rescinded.

This Mini Guide lists the Federal Motor Vehicle Safety Standards in effect as of April 1, 2000, and provides a brief description of and the intent behind each safety standard. It also provides descriptions of other selected federal regulations and requirements.

This booklet does not purport to include all regulations, definitions, or sections of federal law that pertain to the manufacture, sale, and use of motor vehicles or items of motor vehicle equipment. Rather, the intent of this booklet is to make the reader aware that Federal Motor Vehicle Safety Standards and other regulations and requirements exist, and to encourage the users of the Mini Guide to investigate and comply with their respective responsibilities.

The National Highway Traffic Safety Administration (NHTSA) has an Auto Safety Hotline to provide callers with auto safety information and to enable them to report safety problems with motor vehicles and items of motor vehicle equipment. The toll-free number is 1-800-424-9393. (Washington D.C. area residents may call 202-366-0123).

Additionally, NHTSA can be contacted on the Internet at www.nhtsa.dot.gov/. NHTSA's home page offers regulatory information, accident data, legal interpretation letters, safety recall information, transportation safety information, news releases, and more. There is also a section on "School Buses."

Complete text of the FMVSSs can be viewed at www.access.gpo.gov/nara/cfr/cfr-table-search.html. Select "Retrieve CFR Sections by citation." Title = 49; Part = 571; and Section = the FMVSS number, e.g., 101, 102, etc.

1 Title 49, United States Code, Chapter 301, "Motor Vehicle Safety," is the legal citation for all of the requirements and regulations established in accordance with the National Traffic and Motor Vehicle Safety Act of 1966, as amended.

THE PUBLIC LAW

The following is a synopsis of several important sections contained in the National Traffic and Motor Vehicle Safety Act, as amended:

Effective Date - The Secretary of Transportation shall specify the effective date of a Federal Motor Vehicle Safety Standard (FMVSS) in the order prescribing the standard. A standard may not become effective before the 180th day after the standard is prescribed or later than one year after it is prescribed. However, the Secretary may prescribe a different effective date after finding, for good cause, that a different effective date is in the public interest and publishing the reasons for the finding.

Preemption - When a FMVSS is in effect, a State or political subdivision of a State may prescribe, or continue in effect, a standard applicable to the same aspect of performance of a motor vehicle or item of motor vehicle equipment only if the standard is identical to the FMVSS. However, the United States Government, a State, or political subdivision of a State may prescribe a standard for a motor vehicle or item of motor vehicle equipment obtained for its own use that imposes a higher performance requirement than that required by the FMVSS.

Prohibitions - A person may not manufacture for sale, sell, offer for sale, or introduce or deliver for introduction in interstate commerce, or import into the United States, any motor vehicle or item of motor vehicle equipment manufactured on or after the effective date of a FMVSS, unless the vehicle or equipment complies with the FMVSS and is covered by a certificate of compliance.

Certification of Compliance - A manufacturer or distributor of a motor vehicle or item of motor vehicle equipment shall certify to the distributor or dealer that the vehicle or equipment complies with applicable FMVSSs. Certification of a vehicle must be shown by a label or tag permanently fixed to the vehicle. Certification of equipment may be shown by a label or tag on the equipment or on the outside of the container in which the equipment is delivered.

Purchaser Records - A manufacturer of a motor vehicle or tire (except a retreaded tire) shall cause to be maintained a record of the name and address of the first purchaser of each vehicle or tire it produces.

Rendering Inoperative - A manufacturer, distributor, dealer, or motor vehicle repair business may not knowingly make inoperative any part, device or element of design installed on or in a motor vehicle or item of motor vehicle equipment in compliance with an applicable FMVSS, unless there is reasonable cause to believe that the vehicle or equipment will not be used (except for testing or similar purpose during maintenance or repair) when the device or element is inoperative.

Violations - A person who violates any provisions or regulations prescribed under Title 49, United States Code, Chapter 301, is liable to the United States Government for a civil penalty of not more than \$1,100 for each violation, not to exceed \$925,000 for any related series of violations.

Records and Reports - The Secretary reasonably may require a manufacturer of a motor vehicle or item or motor vehicle equipment to keep records, and may require a manufacturer, distributor, or dealer to make reports, to enable the Secretary to decide whether the manufacturer, distributor,

or dealer has complied or is complying with the provisions and regulations prescribed under Title 49, United States Code, Chapter 301.

Safety Defects or Noncompliance - A manufacturer of a motor vehicle or item of motor vehicle equipment shall notify the Secretary by certified mail, and the owners, purchasers, and dealers of the vehicle or equipment, if the manufacturer: (1) decides in good faith that the vehicle or equipment contains a safety-related defect; or (2) decides in good faith that the vehicle or equipment does not comply with an applicable FMVSS.

Owner Notification of a Safety Recall - A manufacturer must notify by first class mail each person registered under State law as the owner, and whose name and address is reasonably ascertainable by the manufacturer through State records or other available sources, or the most recent purchaser of the vehicle containing the safety-related defect or noncompliance. The notification must identify the safety problem and potential consequences, the means of remedying the defect or noncompliance, and when and where the vehicle or equipment can be taken for the remedy. In addition, the notification must mention that the remedy will be cost free (if the vehicle or equipment was first purchased less than 8 years earlier, or the tires were first purchased less than 3 years earlier) and the notification must provide the address and telephone number of the National Highway Traffic Safety Administration and its Auto Safety Hotline (1-800-424-9393).

Definitions

Add-on Child Restraint System: means any portable child restraint system.

Adjacent Seat: means a designated seating position located so that some portion of its occupant space is not more than 10 inches from an emergency exit, for a distance of at least 15 inches measured horizontally and parallel to the exit.

Administrator: means the Administrator of the National Highway Traffic Safety Administration.

Air Brake System: means a system that uses air as a medium for transmitting pressure or force from the driver control to the service brake, but does not include a system that uses compressed air or vacuum only to assist the driver in applying muscular force to hydraulic or mechanical components.

Antilock System: means a portion of a service brake system that automatically controls the degree of rotational wheel slip at one or more road wheels of the vehicle during braking.

Automatic-locking Retractor (seat belt): means a retractor incorporating adjustment hardware by means of a positive self-locking mechanism, which is capable of withstanding restraint forces, when locked.

Bi-fuel CNG Vehicle: means a vehicle equipped with two independent fuel systems, one of which is designed to supply compressed natural gas (CNG), and the other to supply a fuel other than CNG.

Body Component: means a part of a vehicle's body made from a single piece of homogeneous material, or from a single piece of composite material such as plywood.

Body Panel: means a body component used on the exterior or interior surface to enclose the vehicle's occupant space.

Body Panel Joint: means the area of contact or close proximity between the edges of a body panel and another body component, excluding spaces designed for ventilation or another functional purpose, and excluding doors, windows, and maintenance access panels.

Brake Backup System: means a portion of a service brake system, such as a pump, that supplies energy in the event of a primary brake power source failure.

Built-in Child Restraint System: means a child restraint system that is designed to be an integral part of, and permanently installed in, a motor vehicle.

Bus: means a motor vehicle with motive power, except a trailer, designed for carrying more than 10 persons, including the driver.

Bus Body: means the portion of a bus that encloses the bus' occupant space, exclusive of the bumpers, chassis frame, and any structure forward of the forwardmost point of the windshield mounting.

Chief Counsel: means the Chief Counsel of the National Highway Traffic Safety Administration.

Child Restraint Anchorage: means any vehicle component, other than Type I or Type II seat belts, that is involved in transferring loads generated by the child restraint system to the vehicle.

Child Restraint Anchorage System: means a vehicle system that is designed for attaching a child restraint system to a vehicle at a particular designated seating position.

Child Restraint System: means any device, except Type I or Type II seat belts, designed for use in a motor vehicle to restrain, seat, or position children who weigh 50 pounds or less.

Child Restraint System Factory-installed, Built-in: means a built-in child restraint system that has been or will be permanently installed in a motor vehicle before that vehicle is certified as a completed or altered vehicle.

Clearance Lamp: means a lamp used on the front and the rear of a motor vehicle to indicate its overall width and height.

CNG Fuel Container: means a container designed to store CNG as motor fuel on board a motor vehicle.

Burst Pressure: means the highest internal pressure reached in a CNG fuel container during a burst test conducted at a temperature of 21° C (70° F).

Fill Pressure: means the internal pressure of a CNG fuel container attained at the time of filling. Fill pressure varies according to the gas temperature in the container, which is dependent on the charging parameters and the ambient conditions.

Full Wrapped: means applying the reinforcement of a filament or resin system over the entire liner, including the domes, of a CNG fuel cylinder.

High Pressure Portion of a Fuel System : means all the components from and including each CNG fuel container up to, but not including, the first pressure regulator.

Hoop Wrapped: means winding a filament in a substantially circumferential pattern over the cylindrical portion of the liner so that the filament does not transmit any significant stresses in a direction parallel to the CNG fuel cylinder's longitudinal axis.

Hydrostatic Pressure: means the internal pressure to which a CNG fuel container is taken during testing.

Service Pressure: means the internal settled pressure of a CNG fuel container at a uniform gas temperature of 21° C (70° F) with full gas content. It is the pressure for which the container has been constructed for use under normal conditions.

Stress Ratio: means the stress in the fiber at minimum burst pressure divided by the stress in the fiber at service pressure.

CNG Fuel System: means all components used to store or supply CNG to a vehicle's engine.

Curb Weight: means the weight of a motor vehicle with standard equipment; maximum capacity of fuel, oil, and coolant; and, if so equipped, air conditioning and additional weight of optional engine. Curb weight does not include the driver, passengers, or cargo.

Daylight Opening: means the maximum unobstructed opening of an emergency exit when viewed from a direction perpendicular to the plane of the opening.

Dealer: means any person who is engaged in the sale and distribution of new motor vehicles or items of motor vehicle equipment primarily to purchasers who, in good faith, purchase any such vehicle or equipment for purposes other than resale.

Dedicated CNG Vehicle: means a vehicle equipped with one fuel system and designed to operate on CNG.

Deputy Administrator: means the Deputy Administrator of the National Highway Traffic Safety Administration.

Designated Seating Position: means any plan view location capable of accommodating a person at least as large as a 5th percentile adult female, if the overall seat configuration and design and vehicle design is such that the position is likely to be used as a seating position while the vehicle is in motion, except for auxiliary seating accommodations such as temporary or folding jump seats. Any bench or split-bench seat in a passenger car, truck or multipurpose passenger vehicle with a GVWR less than 10,000 pounds, having greater than 50 inches of hip room [measured in accordance with SAE Standard J1100(a)] shall have not less than three designated seating positions, unless the seat design or vehicle design precludes the center position from being used for seating.

Distributor: means any person primarily engaged in the sale and distribution of motor vehicles or items of motor vehicle equipment for resale.

Driver: means the occupant of a motor vehicle seated immediately behind the steering control system.

Dual-fuel CNG Vehicle: means a vehicle which is fueled by two fuels simultaneously, one of which is CNG, and the other of which is a fuel other than CNG.

Effective Date: means the date on which a regulation or a standard takes effect, on or after which compliance is legally required.

Emergency Brake System: means a mechanism designed to stop a vehicle after a single failure occurs in the service brake system of a part designed to contain compressed air, brake fluid, or vacuum (except failure of a common valve, manifold brake fluid housing, or brake chamber housing).

Emergency-locking Retractor (seat belt): means a retractor incorporating adjustment hardware by means of a locking mechanism that is activated by vehicle acceleration, webbing movement relative to the vehicle, or other automatic action during an emergency, and is capable of withstanding restraint forces when locked.

Final-Stage Manufacturer: means a person who performs such manufacturing operations on an incomplete vehicle that it becomes a completed vehicle.

Forward Control Vehicle: means a configuration in which more than half of the engine length is rearward of the foremost point of the windshield base and the steering wheel hub is in the forward quarter of the vehicle length.

Gross Axle Weight Rating (GAWR): means the value specified by the vehicle manufacturer as the load-carrying capacity of a single axle system, as measured at the tire-ground interface.

Gross Vehicle Weight Rating (GVWR): means the value specified by the manufacturer as the loaded weight of a single vehicle, including driver, passengers, and cargo.

H-Point: means the mechanically hinged hip point of a manikin which simulates the actual pivot center of the human torso and thigh, described in SAE Recommended Practice J826, "Manikins for Use in Defining Vehicle Seating Accommodations," November 1962.

Head Protection Zone: means any contactable surface of the vehicle within any zone specified as follows: The head protection zones in a school bus are the spaces in front of each school bus passenger seat which are not occupied by bus sidewall, window, or door structure, and which, in relation to that seat and its seating reference point, are enclosed by the following planes;

- (a) Horizontal planes 12" and 40" above the seating reference point;
- (b) A vertical longitudinal plane tangent to the inboard (aisle side) edge of the seat;
- (c) A vertical longitudinal plane 3.25" inboard of the outboard edge of the seat; and
- (d) Vertical transverse planes through, and 30" forward of, the seating reference point.

Head Restraint: means a device that limits rearward angular displacement of the occupants's head, relative to its torso line.

Hydraulic Brake System: means a system that uses hydraulic fluid as a medium for transmitting force from a service brake control to the service brake, and that may incorporate a brake power assist unit, or a brake power unit.

Identification Lamps: means lamps used to identify certain types of commercial motor vehicles.

Incomplete Vehicle Manufacturer: means a person who manufactures an incomplete vehicle by assembling components, none of which taken separately constitute an incomplete vehicle.

Incomplete Vehicle: means an assemblage consisting, at a minimum, of frame and chassis structure, power train, steering system, suspension system, and braking system -- to the extent that those systems are to be part of the completed vehicle -- that requires further manufacturing operations, other than the addition of readily attachable components, such as mirrors or tire and rim assemblies, or minor finishing operations, such as painting, to become a completed vehicle.

Interior Compartment Door: means any door in the interior of a vehicle installed by the manufacturer as a cover for storage space normally used for personal effects.

Intermediate Manufacturer: means a person, other than the incomplete vehicle manufacturer or the final-stage manufacturer, who performs manufacturing operations on an incomplete vehicle.

Load Rating (Tire): means the maximum load a tire is rated to carry.

Longitudinal or Longitudinally: means parallel to the longitudinal centerline of the vehicle.

Manufacturer: means any person engaged in the manufacturing or assembling of motor vehicles or motor vehicle equipment, including any person importing motor vehicle equipment for resale.

Mid-point of the Passenger Compartment: means any point on a vertical transverse plane bisecting the vehicle longitudinal centerline that extends between the two vertical transverse planes which define the foremost and rearmost limits of the passenger compartment.

Multipurpose Passenger Vehicle: means a motor vehicle with motive power, except a trailer, designed to carry 10 persons or less, which is constructed either on a truck chassis or with special features for occasional off-road operation.

NHTSA: means the National Highway Traffic Safety Administration.

Non-locking Retractor (seat belt): means a retractor from which the webbing is extended to essentially its full length by a small external force, which provides no adjustment for assembly length, and which may or may not be capable of sustaining restraint forces at maximum webbing extension.

Occupant Space: means the space directly above the seat and footwell, bounded vertically by the ceiling and horizontally by the normally positioned seat back, and the nearest obstruction of occupant motion in the direction the seat faces.

Outboard Designated Seating Position: means a designated seating position where a longitudinal vertical plane tangent to the outboard side of the seat cushion is less than 12 inches from the innermost point on the inside surface of the vehicle at a height between the design H-point and the shoulder reference point, longitudinally between the front and rear edges of the seat cushion.

Overall Vehicle Width: means the nominal design dimension of the widest part of the vehicle, exclusive of signal lamps, marker lamps, outside rearview mirrors, flexible fender extensions, and mud flaps, determined with doors and windows closed and the wheels in the straight-ahead position.

Parking Brake: means a mechanism designed to prevent the movement of a stationary motor vehicle.

Parking Brake System: means a brake system used to hold a vehicle stationary.

Parking Mechanism: means a component or subsystem of the drive train that locks the drive train when the transmission control is placed in a parking or other gear position and the ignition key is removed.

Passenger Compartment: means space within the school bus interior that is between a vertical transverse plane located 30 inches (76 centimeters) in front of the forwardmost passenger seating reference point and a vertical transverse plane tangent to the rear interior wall of the bus at the vehicle centerline.

Passive Restraint System: means a system meeting the occupant crash protection requirements that requires no action by vehicle occupants.

Pelvic Restraint (seat belt): means a seat belt assembly, or portion thereof, intended to restrain movement of the pelvis.

Post and Roof Bow Panel Space: means the area between two adjacent post and roof bows of a bus.

Push-out Window: means a vehicle window designed to open outward, to provide for emergency egress.

Rear Designated Seating Position: means any designated seating position that is rearward of the front seat(s).

Reflex Reflector: means a device which is used on a vehicle to give an indication to an approaching driver by reflected light from the lamps on the approaching vehicle.

Retractor (seat belt): means a device for storing part or all of the webbing in a seat belt assembly.

School Bus: means a bus that is sold, or introduced in interstate commerce, for purposes that include carrying pre-primary, primary, and secondary school students to and from school or related events, but does not include a bus designed and sold for operation as a common carrier in urban transportation.

School Bus Passenger Seat: means a seat in a school bus, other than the driver's seat.

Seat Belt Anchorage: means any component, other than the webbing or straps, involved in transferring seat belt loads to the vehicle structure, including, but not limited to, the attachment hardware, seat frames, seat pedestals, the vehicle structure itself, and any part of the vehicle whose failure causes separation of the belt from the vehicle structure.

Seat Belt Assembly: means any strap, webbing, or similar device designed to secure a person in a motor vehicle in order to mitigate the results of any accident, including all necessary buckles and other fasteners, and all hardware designed for installing such seat belt assembly in a motor vehicle.

Seating Reference Point: means the unique design H-point, as defined in SAE J1100 (June 1984), which:

- (a) Establishes the rearmost normal design driving or riding position of each designated seating position, which includes consideration of all modes of adjustment -- horizontal, vertical, and tilt -- in a vehicle;
- (b) Has X,Y, and Z coordinates, as defined in SAE J1100 (June 1984), established relative to the designed vehicle structure;
- (c) Simulates the position of the pivot center of the human torso and thigh; and
- (d) Is the reference point employed to position the two-dimensional drafting template with the 95th percentile leg described in SAE J826 (May 1987), or, if the drafting template with the 95th percentile leg cannot be positioned in the seating position, is located with the seat in its most rearward adjustment position.

Service Brake System: means the primary brake system used for slowing and stopping a vehicle.

Side Marker Lamps: means lamps used on each side of a trailer or truck to indicate its overall length.

Side Marker Lamp (Intermediate): means a lamp shown to the side of a trailer or truck to indicate the approximate middle of a trailer 30 feet or more in length.

Split Service Brake System: means a brake system consisting of two or more subsystems actuated by a single control designed so that a leakage-type failure of a pressure component in a single subsystem (except structural failure of a housing that is common to two or more subsystems) shall not impair the operation of any other subsystem.

Stop Lamps: means lamps shown to the rear of a motor vehicle to indicate that the service brake system is engaged.

Stop Signal Arm: means a device that can be extended outward from the side of a school bus to provide a signal to other motorists not to pass the bus because it has stopped to load or discharge passengers.

Stopping Distance: means the distance traveled by a vehicle from the point of application of force to the brake control to the point at which the vehicle reaches a full stop.

Tail Lamp: means lamps used to designate the rear of a motor vehicle.

Telltale: means a display that indicates: the actuation of a device; a correct or defective functioning or condition; or a failure to function.

Truck: means a motor vehicle with motive power, except a trailer, designed primarily for the transportation of property or special purpose equipment.

Truck Tractor: means a truck designed primarily for drawing other motor vehicles and not so constructed as to carry a load other than a part of the weight of the vehicle and the load so drawn.

Turn Signals: means lamps used to indicate a change in direction by emitting a flashing light on the side of a motor vehicle towards which a turn will be made.

Type 1 Seat Belt Assembly: means a lap belt for pelvic restraint.

Type 2 Seat Belt Assembly: means a combination of pelvic and upper torso restraints.

Type 2a Shoulder Belt: means an upper torso restraint for use only in conjunction with a lap belt as a Type 2 seat belt assembly.

Unloaded Vehicle Weight: means the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo, occupants, or accessories that are ordinarily removed from the vehicle when they are not in use.

Upper Torso Restraint: means a portion of a seat belt assembly intended to restrain movement of the chest and shoulder regions.

Vehicle Capacity Weight: means the rated cargo and luggage load plus 150 pounds times the vehicle's designated seating capacity.

Vehicle Identification Number: means a series of unique arabic numbers and roman letters which is assigned to a motor vehicle for identification purposes.

Walk-in Van: means a van in which a person can enter the occupant compartment in an upright position.

Wheelchair: means a wheeled seat frame for the support and conveyance of a physically disabled person, comprised of at least a frame, seat, and wheels.

Wheelchair Occupant Restraint Anchorage: means the provision for transferring wheelchair occupant restraint system loads to the vehicle structure.

Wheelchair Securement Anchorage: means the provision for transferring wheelchair securement device loads to the vehicle structure.

Wheelchair Securement Device: means a strap, webbing, or other device used for securing a wheelchair to a motor vehicle, including all necessary buckles and other fasteners.

SUMMARY DESCRIPTION AND PURPOSE OF ALL FEDERAL MOTOR VEHICLE SAFETY STANDARDS

STANDARD NO. 101 "Controls and Displays" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard specifies requirements for the location, identification, and illumination of motor vehicle controls and displays. Its purpose is to ensure the accessibility and visibility of motor vehicle controls and displays and to facilitate their selection under daylight and nighttime conditions, in order to reduce the safety hazards caused by the diversion of the driver's attention from the driving task, and by mistakes in selecting controls.

STANDARD NO. 102 "Transmission Shift Lever Sequence, Starter Interlock, and Transmission Braking Effect" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard specifies the requirements for the transmission shift lever sequence, a starter interlock, and for a braking effect of automatic transmissions, to reduce the likelihood of shifting errors, starter engagement with vehicle in the "drive" position, and to provide supplemental braking at speeds below 25 miles per hour.

STANDARD NO. 103 "Windshield Defrosting and Defogging Systems" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard specifies requirements for windshield defrosting and defogging systems to ensure driver visibility under adverse weather conditions.

STANDARD NO. 104 "Windshield Wiping and Washing Systems" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard specifies requirements for windshield wiping and washing systems to ensure driver visibility under adverse weather conditions.

STANDARD NO. 105 "Hydraulic Brake Systems" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses Equipped with Hydraulic Service Brake Systems.

This standard specifies requirements for hydraulic service brake and associated parking brake systems. Its purpose is to insure safe braking performance under normal and emergency conditions.

STANDARD NO. 106 "Brake Hoses" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, and Motorcycles, and Hydraulic, Air and Vacuum Brake Hoses, Brake Hose Assemblies, and Brake Hose End Fittings.

This standard specifies labeling and performance requirements for motor vehicle brake hoses, brake hose assemblies, and brake hose end fittings. Its purpose is to reduce brake system failure from pressure or vacuum loss due to hose or hose assembly rupture.

STANDARD NO. 107 "Reflecting Surfaces" - Applied to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses. [Rescinded May 6, 1996]

This standard specified reflecting surface requirements for certain vehicle components in the driver's field of view.

STANDARD NO. 108 "Lamps, Reflective Devices, and Associated Equipment" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, and Motorcycles, and Lamps, Reflective Devices, and Associated Equipment for Replacement.

This standard specifies requirements for original and replacement lamps, reflective devices, and associated equipment, to provide adequate illumination of the roadway and enhance conspicuity of motor vehicles on the public roads.

STANDARD NO. 109 "New Pneumatic Tires" - Applies to Passenger Cars.

This standard specifies tire dimensions and laboratory test requirements for bead unseating resistance, strength, endurance, and high-speed performance; defines tire load ratings; and specifies labeling requirements for passenger car tires.

STANDARD NO. 110 "Tire Selection and Rims" - Applies to Passenger Cars.

This standard specifies requirements for tire selection to prevent tire overloading.

STANDARD NO. 111 "Rearview Mirrors" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, School Buses, and Motorcycles.

This standard specifies requirements for the performance and location of inside and outside rearview mirrors. Its purpose is to ensure that the driver has a clear and reasonably unobstructed view of areas around the vehicle.

STANDARD NO. 112 "Headlamp Concealment Devices" - Applied to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, and Motorcycles. [Rescinded October 24, 1996, and some requirements moved to Standard No. 108]

This standard specified requirements for headlamp concealment devices.

STANDARD NO. 113 "Hood Latch System" - Applies Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard specifies the requirements for providing a hood latch system(s).

STANDARD NO. 114 "Theft Protection" - Applies to Passenger Cars, Trucks, and Multipurpose Passenger Vehicles with a GVWR of 10,000 Pounds or Less.

This standard specifies requirements for theft protection, to reduce the incidence of crashes resulting from unauthorized use of a motor vehicle and to reduce the incidence of crashes resulting from rollaway of parked vehicles.

STANDARD NO. 115 "Vehicle Identification Number - Basic Requirements" - Applied to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Trailers (Including Trailer Kits), Incomplete Vehicles, and Motorcycles. [Rescinded July 8, 1996, and requirements moved to Part 565]

This standard specified general physical requirements for a vehicle identification number (VIN) and its installation, to simplify vehicle information retrieval and to reduce the incidence of accidents by increasing the accuracy and efficiency of vehicle recall campaigns.

STANDARD NO. 116 "Motor Vehicle Brake Fluids" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, Motorcycles, and All Fluid for Use in Hydraulic Brake Systems of Motor Vehicles.

This standard specifies requirements for fluids for use in hydraulic brake systems of motor vehicles, containers for these fluids, and labeling of the containers. Its purpose is to reduce failures in the hydraulic braking systems of motor vehicles which may occur because of the manufacture or use of improper or contaminated brake fluid.

STANDARD NO. 117 "Retreaded Pneumatic Tires" - Applies to Passenger Cars and Retreaded Tires.

This standard specifies performance, labeling, and certification requirements for retreaded pneumatic passenger car tires. Its purpose is to require retreaded pneumatic passenger car tires to meet safety criteria similar to those for new pneumatic passenger car tires.

STANDARD NO. 118 "Power-Operated Window, Partition, and Roof Panel Systems" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, and Trucks with a GVWR of 10,000 Pounds or Less.

This standard specifies requirements for power-operated window, partition, and roof panel systems to minimize the likelihood of death or injury from their accidental operation.

STANDARD NO. 119 "New Pneumatic Tires for Vehicles Other Than Passenger Cars" - Applies to Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, and Motorcycles.

This standard establishes performance and marking requirements for tires. Its purpose is to provide safe operational performance levels for tires used on motor vehicles other than passenger cars, and to place sufficient information on the tires to permit their proper selection and use.

STANDARD NO. 120 "Tire Selection and Rims for Motor Vehicles Other Than Passenger Cars" - Applies to Multipurpose Passenger Vehicles, Trucks, Buses, Trailers, Motorcycles, Rims for Use on Those Vehicles, and Non-pneumatic Spare Tire Assemblies for Use on Those Vehicles.

This standard specifies tire and rim selection requirements and rim marking requirements. Its purpose is to provide safe operational performance by ensuring that vehicles to which it applies are equipped with tires of adequate size and load rating and with rims of appropriate size and type designation.

STANDARD NO. 121 "Air Brake Systems" - Applies to Trucks, Buses, and Trailers Equipped with Air Brake Systems.

This standard establishes performance and equipment requirements for braking systems on vehicles equipped with air brake systems. Its purpose is to insure safe braking performance under normal and emergency conditions.

STANDARD NO. 122 "Motorcycle Brake Systems" - Applies to Motorcycles.

This standard specifies performance requirements for motorcycle brake systems. Its purpose is to insure safe motorcycle braking performance under normal and emergency conditions.

STANDARD NO. 123 "Motorcycle Controls and Displays" - Applies to Motorcycles.

This standard specifies requirements for the location, operation, identification, and illumination of motorcycle controls and displays, and requirements for motorcycle stands and footrests. Its purpose is to minimize accidents caused by operator error in responding to the motoring environment by standardizing certain motorcycle controls and displays.

STANDARD NO. 124 "Accelerator Control Systems" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard establishes requirements for the return of a vehicle's throttle to the idle position when the driver removes the actuating force from the accelerator control, or in the event of severance or disconnection in the accelerator control system.

STANDARD NO. 125 "Warning Devices" - Applies to Items of Motor Vehicle Equipment.

This standard establishes requirements for devices, without self-contained energy sources, that are designed to be carried in buses and trucks with a GVWR greater than 10,000 pounds, and used to warn approaching traffic of the presence of a stopped vehicle, except for devices designed to be permanently affixed to the vehicle. Its purpose is to reduce rear end collisions between moving traffic and disabled vehicles.

STANDARD NO. 126 "Truck-Camper Loading" - Applied to Slide-In Campers. [Rescinded September 1, 1997, and requirements moved to Part 575]

This standard required manufacturers of slide-in campers to affix a label to each camper that contains information relating to certification, identification, and proper loading, and to provide more detailed loading information in the owner's manual.

STANDARD NO. 129 - "New Non-Pneumatic Tires for Passenger Cars" - Applies to New Temporary Spare Non-Pneumatic Tires for Use on Passenger Cars.

This standard specifies tire dimensions and laboratory test requirements for lateral strength, endurance, and high-speed performance; defines the tire load rating; and specifies labeling requirements for non-pneumatic spare tires.

STANDARD NO. 131 "School Bus Pedestrian Safety Devices" - Applies to All School Buses.

This standard establishes requirements for devices that can be installed on school buses to improve the safety of pedestrians in the vicinity of stopped school buses. Its purpose is to minimize the likelihood of vehicles passing a stopped school bus and striking pedestrians in the vicinity of the bus.

STANDARD NO. 135 "Passenger Car Brake Systems" - Applies to Passenger Cars Manufactured On or After September 1, 2000.

This standard specifies requirements for service brakes and associated parking brake systems, to ensure safe braking performance under normal and emergency driving conditions.

STANDARD NO. 201 "Occupant Protection in Interior Impact" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses with a GVWR of 10,000 Pounds or Less.

This standard specifies requirements to afford impact protection for occupants.

STANDARD NO. 202 "Head Restraints" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses with a GVWR of 10,000 Pounds or Less.

This standard specifies requirements for head restraints to reduce the frequency and severity of neck injury in rear-end and other collisions.

STANDARD NO. 203 "Impact Protection for the Driver from the Steering Control System" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses with a GVWR of 10,000 Pounds or Less.

This standard specifies requirements for steering control systems that will minimize chest, neck, and facial injuries to the driver as a result of impact.

STANDARD NO. 204 "Steering Control Rearward Displacement" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses with a GVWR of 10,000 Pounds or Less.

This standard specifies requirements limiting the rearward displacement of the steering control into the passenger compartment, to reduce the likelihood of chest, neck, or head injury.

STANDARD NO. 205 "Glazing Materials" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Motorcycles, Slide-In Campers, Pickup Covers, and Glazing Materials Used in Motor Vehicles.

This standard specifies requirements for glazing materials for use in motor vehicles and items of motor vehicle equipment. Its purpose is to reduce injuries resulting from impact into glazing surfaces, to ensure a necessary degree of transparency in motor vehicle windows for driver visibility, and to minimize the possibility of occupants being thrown through the vehicle windows in collisions.

STANDARD NO. 206 "Door Locks and Door Retention Components" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, and Trucks.

This standard specifies requirements for side door locks and side door retention components including latches, hinges, and other supporting means, to minimize the likelihood of occupants being thrown from the vehicle as a result of impact.

STANDARD NO. 207 "Seating Systems" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard establishes requirements for seats, their attachment assemblies, and their installation to minimize the possibility of their failure by forces acting on them as a result of vehicle impact.

STANDARD NO. 208 "Occupant Crash Protection" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, Buses, Pressure Vessels, and Explosive Devices.

This standard specifies performance requirements for the protection of vehicle occupants in crashes. Its purpose is to reduce the number of deaths of vehicle occupants, and the severity of injuries, by specifying vehicle crashworthiness requirements in terms of forces and accelerations measured on anthropomorphic dummies in test crashes, and by specifying equipment requirements for active and passive restraint systems.

STANDARD NO. 209 "Seat Belt Assemblies" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard specifies requirements for seat belt assemblies.

STANDARD NO. 210 "Seat Belt Assembly Anchorages" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard establishes requirements for seat belt assembly anchorages to insure their proper location for effective occupant restraint and to reduce the likelihood of their failure.

STANDARD NO. 211 "Wheel Nuts, Wheel Discs, and Hub Caps" - Applied to Passenger Cars, Multipurpose Passenger Vehicles, and Such Items of Motor Vehicle Equipment. [Rescinded June 5, 1996]

This standard precluded the use of wheel nuts, wheel discs, and hub caps that constituted a hazard to pedestrians and cyclists.

STANDARD NO. 212 "Windshield Mounting" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses with a GVWR of 10,000 Pounds or Less.

This standard establishes windshield retention requirements for motor vehicles during crashes. Its purpose is to provide for retention of the vehicle's windshield during a crash, thereby utilizing fully the penetration-resistance and injury-avoidance properties of the windshield glazing materials and preventing the ejection of occupants from the vehicle.

STANDARD NO. 213 "Child Restraint Systems" - Applies to Items of Motor Vehicle Equipment.

This standard specifies requirements for child restraint systems used in motor vehicles. Its purpose is to reduce the number of children killed or injured in motor vehicle crashes.

STANDARD NO. 214 "Side Impact Protection" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses with a GVWR of 10,000 Pounds or Less.

This standard specifies performance requirements for protection of occupants in side impact crashes. Its purpose is to reduce the risk to vehicle occupants in side impact crashes by specifying vehicle crashworthiness requirements in terms of accelerations measured on anthropomorphic dummies in test crashes, by specifying strength requirements for side doors, and by other means.

STANDARD NO. 216 "Roof Crush Resistance" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses with a GVWR of 10,000 Pounds or Less.

This standard establishes strength requirements for the passenger compartment roof. Its purpose is to reduce the crushing of the roof into the passenger compartment in rollover accidents.

STANDARD NO. 217 "Bus Emergency Exits and Window Retention and Release" - Applies to Buses.

This standard establishes requirements for the retention of windows other than windshields in buses, and establishes operating forces, opening dimensions, and markings for push-out bus windows and other emergency exits. Its purpose is to minimize the likelihood of occupants being thrown from the bus and to provide a means of readily accessible emergency egress.

STANDARD NO. 218 "Motorcycle Helmets" - Applies to Items of Motor Vehicle Equipment. This standard establishes minimum performance requirements for helmets designed for use by motorcyclists and other motor vehicle users. Its purpose is to reduce deaths and injuries resulting from head impacts to motorcyclists and other motor vehicle users.

STANDARD NO. 219 "Windshield Zone Intrusion" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses with a GVWR of 10,000 Pounds or Less.

This standard specifies limits for the displacement into the windshield area of motor vehicle components during a crash. Its purpose is to reduce crash injuries and fatalities that result from occupants contacting vehicle components displaced near or through the windshield.

STANDARD NO. 220 "School Bus Rollover Protection" - Applies to School Buses.

This standard establishes performance requirements for school bus rollover protection. Its purpose is to reduce the number of deaths and the severity of injuries that result from failure of the school bus body structure to withstand forces encountered in rollover crashes.

This standard establishes requirements for the strength of the body panel joints in school bus bodies. Its purpose is to reduce deaths and injuries resulting from the structural collapse of school bus bodies during crashes.

STANDARD NO. 222 "School Bus Passenger Seating and Crash Protection" - Applies to All School Buses.

This standard establishes occupant protection requirements for school bus passenger seating and restraining barriers. Its purpose is to reduce the number of deaths and the severity of injuries that result from the impact of school bus occupants against structures within the vehicle during crashes and sudden driving maneuvers.

STANDARD NO. 223 "Rear Impact Guards" - Applies to Rear Impact Guards for Trailers and Semitrailers Subject to FMVSS 224 Rear Impact Protection.

This standard specifies requirements for rear impact guards for trailers and semitrailers.

STANDARD NO. 224 "Rear Impact Protection" - Applies to Trailers and Semitrailers with a GVWR of 10,000 Pounds or More.

This standard establishes requirements for the installation of rear impact guards on trailers and semitrailers with a GVWR of 10,000 pounds or more.

STANDARD NO. 225 "Child Restraint Anchorage Systems" - Applies to Passenger Cars, Trucks and Multipurpose Passenger Vehicles with a GVWR of 8,500 Pounds or Less, and Buses with a GVWR of 10,000 Pounds or Less.

This standard establishes requirements for child restraint anchorage systems to ensure their proper location and strength for the effective securing of child restraints, to reduce the likelihood of anchorage systems' failure, and to increase the likelihood that child restraints are properly secured.

STANDARD NO. 301 "Fuel System Integrity" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses with a GVWR of 10,000 Pounds or Less, and School Buses with a GVWR of 10,000 Pounds or More, and Which Use Fuel with a Boiling Point Above 32 Degrees F.

This standard specifies requirements for the integrity of motor vehicle fuel systems. Its purpose is to reduce fires that result from fuel spillage during and after motor vehicle crashes.

STANDARD NO. 302 "Flammability of Interior Materials" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses.

This standard specifies burn resistance requirements for materials used in the occupant compartments of motor vehicles. Its purpose is to reduce deaths and injuries to motor vehicle occupants caused by vehicle fires, especially those originating in the interior of the vehicle from sources such as matches or cigarettes.

STANDARD NO. 303 "Fuel System Integrity of Compressed Natural Gas Vehicles" - Applies to Passenger Cars, Multipurpose Passenger Vehicles, Trucks, and Buses that have a GVWR of 10,000 Pounds or Less and Use CNG as a Motor Fuel, and to School Buses Regardless of Weight that Use CNG as a Motor Fuel.

This standard specifies requirements for the integrity of motor vehicle fuel systems using compressed natural gas (CNG), including the CNG fuel systems of bi-fuel, dedicated, and dual fuel CNG vehicles. Its purpose is to reduce deaths and injuries occurring from fires that result from fuel leakage during and after motor vehicle crashes.

STANDARD NO. 304 "Compressed Natural Gas Fuel Container Integrity" - Applies to Containers Designed to Store CNG as Motor Fuel On-Board Any Motor Vehicle.

This standard specifies requirements for the integrity of compressed natural gas (CNG) motor vehicle fuel containers. Its purpose is to reduce deaths and injuries occurring from fires that result from fuel leakage during and after motor vehicle crashes.

STANDARD NO. 401 [Proposed] "Lift Systems for Accessible Transportation" - Would Apply to Buses.

This standard would specify requirements for vehicles equipped with a lift. Its purpose would be to prevent injuries and fatalities during the operation of lifts installed in motor vehicles.

STANDARD NO. 500 "Low-speed Vehicles" - Applies to 4-Wheeled Vehicles Which Operate at Speeds Between 20 and 35mph.

This standard specifies requirements for low-speed vehicles. Its purpose is to ensure that low-speed vehicles operated on the public streets, roads, and highways are equipped with the minimum motor vehicle safety equipment appropriate for motor vehicle safety.

SUMMARY DESCRIPTION OF SELECTED SECTIONS OF TITLE 49, CODE OF FEDERAL REGULATIONS

Part 510 - Information Gathering Powers.

This part defines the information gathering powers of NHTSA. The agency may use any of the following means to conduct investigations, inspections, or inquiries: (a) subpoenas; (b) hearings; (c) administrative depositions; (d) general or special orders; and (e) written requests.

Part 552 - Petitions for Rulemaking, Defect, and Noncompliance Orders.

This part establishes procedures for the submission and disposition of petitions filed by interested parties to initiate rulemaking or to make a determination that a motor vehicle or item of motor vehicle equipment does not comply with an applicable FMVSS or contains a defect which relates to motor vehicle safety. The purpose of this part is to enable NHTSA to identify and respond on a timely basis to petitions for rulemaking or defect or noncompliance determinations, and to inform the public of the procedures that are followed in response to such petitions.

Part 553 - Rulemaking Procedures.

This part prescribes the rulemaking procedures that apply to the issuance, amendment, and revocation of rules pursuant to Chapter 301, Title 49 of the United States Code (formerly the National Traffic and Motor Vehicle Safety Act of 1966, as amended) and the Motor Vehicle Information and Cost Savings Act of 1972, as amended.

Part 554 - Standards Enforcement and Defects Investigation.

This part establishes procedures for enforcing FMVSSs and associated regulations, investigating possible safety-related defects, and making noncompliance and defect determinations. The purpose of this part is to inform interested persons of the procedures followed by NHTSA in such instances.

Part 555 - Temporary Exemption from Motor Vehicle Safety Standards.

This part establishes requirements for temporary exemption of certain motor vehicles from compliance with one or more FMVSSs. The purpose of this part is to provide a means by which manufacturers of motor vehicles may obtain temporary exemptions from FMVSSs on the basis of substantial economic hardship, facilitation of the development of new motor vehicle safety or low-emission engine features, or existence of an equivalent overall level of motor vehicle safety.

Part 556 - Exemption for Inconsequential Defect or Noncompliance.

This part sets forth procedures for exempting manufacturers of motor vehicles and replacement equipment from the notice and remedy requirements when a defect or noncompliance is determined to be inconsequential as it relates to motor vehicle safety. The purpose of this part is to enable manufacturers of motor vehicles and replacement equipment to petition NHTSA for exemption from the notification and remedy requirements due to inconsequentiality of the defect

or noncompliance as it relates to motor vehicle safety, and to give all interested persons an opportunity for presentation of data, views, and arguments on the issues of inconsequentiality.

Part 557 - Petitions for Hearings on Notification and Remedy of Defects.

This part establishes procedures for the submission and disposition of petitions filed by interested parties for hearings on the question of whether a manufacturer has reasonably met its obligation to notify owners, purchasers, and dealers of a safety-related defect or noncompliance with a FMVSS, or to remedy such defect or noncompliance. This part also establishes procedures for holding a hearing on these questions. The purpose of this part is to enable NHTSA to identify and respond on a timely basis to petitions for hearings on whether a manufacturer has reasonably met its obligation to notify or remedy, and to establish the procedures for such hearings.

Part 565 - Vehicle Identification Number - Content Requirements.

This part specifies the format, content, and physical requirements for a vehicle identification number (VIN) system and its installation, to simplify vehicle identification information retrieval and to increase the accuracy and efficiency of vehicle recall campaigns.

Part 566 - Manufacturer Identification.

This part requires manufacturers of motor vehicles or items of motor vehicle equipment to which a FMVSS applies to submit to NHTSA identifying information and a description of the item(s) they produce. The purpose of this part is to facilitate the regulation of manufacturers and to aid in establishing a code numbering system for all regulated manufacturers.

Part 567 - Certification.

The purpose of this part is to specify the content, location of, and other requirements for the certification label or tag to be affixed to motor vehicles, and to provide consumers with information to assist them in determining which of the FMVSSs and Federal Theft Prevention Standards are applicable to the vehicle.

Part 568 - Vehicles Manufactured in Two or More Stages.

The purpose of this part is to prescribe the method by which manufacturers of vehicles manufactured in two or more stages shall ensure conformity of those vehicles with the FMVSSs and other regulations.

Part 571 - Federal Motor Vehicle Safety Standards.

This part contains the Federal Motor Vehicle Safety Standards for motor vehicles and items of motor vehicle equipment established under Section 30111, Chapter 301 of Title 49, United States Code (formerly Section 103 of the National Traffic and Motor Vehicle Safety Act of 1966, as amended).

Part 573 - Defect and Noncompliance Reports.

This part specifies requirements for manufacturers to: (a) maintain lists of purchasers and owners notified of defective or noncomplying motor vehicles or items of motor vehicle equipment; (b)

report defects in motor vehicles and items of motor vehicle equipment; (c) report noncompliance with FMVSSs; (d) provide quarterly reports on defect and noncompliance notification campaigns; and (e) provide copies of communications with distributors, dealers, and purchasers regarding defects and noncompliance. The purpose of this part is to: (a) inform NHTSA of defective and noncomplying motor vehicles and items of motor vehicle equipment; (b) obtain information on the adequacy of manufacturers' defect and noncompliance notification campaigns, the corrective action, and owner response; and (c) compare the defect incidence rate among different groups of vehicles.

Part 575 - Consumer Information Regulations.

This part contains Federal Motor Vehicle Consumer Information Regulations on a variety of subjects, including vehicle stopping distance, truck-camper loading, uniform tire quality grading, and handling and maneuvering characteristics of utility vehicles.

Part 576 - Record Retention.

This part establishes requirements for the retention by motor vehicle manufacturers of complaints, reports, and other records concerning motor vehicle malfunctions that may be related to motor vehicle safety. The purpose of this part is to preserve records that are needed for the proper investigation, adjudication, or other disposition of possible defects related to motor vehicle safety and instances of nonconformity to FMVSSs and associated regulations.

Part 577 - Defect and Noncompliance Notification.

This part sets forth requirements for notification to owners of motor vehicles and replacement equipment about the possibility of a defect which relates to motor vehicle safety or a noncompliance with a FMVSS. The purpose of this part is to ensure that notifications of defects or noncompliance adequately inform and effectively motivate owners of potentially defective or noncomplying motor vehicles or items of replacement equipment to have such vehicles or equipment inspected and, where necessary, remedied as quickly as possible.

Part 579 - Defect and Noncompliance Responsibility.

This part sets forth the responsibilities of manufacturers for safety-related defects and noncompliances with FMVSSs in motor vehicles and items of motor vehicle equipment. The purpose of this part is to facilitate: (a) the notification of owners of defective and noncomplying motor vehicles and items of motor vehicle equipment; and (b) the remedy of defective and noncomplying vehicles and items of motor vehicle equipment, by equitably reapportioning the responsibility for safety-related defects and noncompliance with FMVSSs among manufacturers of motor vehicles and items of motor vehicle equipment.

Part 580 - Odometer Disclosure Requirements.

This part prescribes rules requiring transferors and lessees of motor vehicles to make written disclosure to transferees and lessors respectively, concerning the odometer mileage and its accuracy. The purpose of this part is to provide purchasers of motor vehicles with odometer information to assist them in determining a vehicle's condition and value by making the disclosure of a vehicle's mileage a condition of title, and by requiring lessees to disclose to their lessors the vehicle's mileage at the time the lessors transfer the vehicle. In addition, the purpose

of this part is to preserve records that are needed for the proper investigation of possible violations of the Motor Vehicle Information and Cost Savings Act and any subsequent prosecutorial, adjudicative, or other action.

Part 581 - Bumper Standard.

This standard establishes requirements for the impact resistance of vehicles in low-speed front and rear collisions. The purpose of this standard is to reduce physical damage to the front and rear ends of a passenger motor vehicle from low-speed collisions.

Part 591 - Importation of Vehicles and Equipment Subject to Federal Safety, Bumper, and Theft Prevention Standards.

This part establishes procedures governing the importation of motor vehicles and items of motor vehicle equipment subject to the FMVSSs, the bumper standard, and the theft prevention standards. The purpose of this part is to ensure that motor vehicles and items of motor vehicle equipment imported into the United States conform with theft prevention standards, and conform with or are brought into conformity with all FMVSSs and bumper standard. The purpose is also to ensure that nonconforming vehicles and equipment items imported on a temporary basis are ultimately either exported or abandoned to the United States government.

Part 596 - Child Restraint Anchorage System Phase-In Reporting Requirements.

This part establishes requirements for manufacturers of passenger cars, and for trucks and multipurpose passenger vehicles with a gross vehicle weight rating (GVWR) of 3,855 kilograms (8,500 pounds) or less, and buses with a GVWR of 4,563 kg (10,000 pounds) or less, to submit a report, and maintain records related to the report, concerning the number of such vehicles that meet the requirements of Standard No. 225, "Child Restraint Anchorage Systems."

SELECTED REPORTS REQUIRED OF MANUFACTURERS BY NHTSA

Who is a Manufacturer?

"Manufacturer" means any person engaged in the manufacturing or assembling of motor vehicles or items of motor vehicle equipment, including any person importing motor vehicles or items of motor vehicle equipment for resale.

Vehicle Identification Number - Part 565

Manufacturers shall submit to NHTSA the unique identifier for each make and type of vehicle it manufactures, at least 60 days before affixing the first VIN using the identifier. Information needed to decipher the characters contained in the VIN must be submitted to NHTSA at least 60 days prior to offering for sale the first vehicle identified by a VIN containing that information.

Address:

Administrator
National Highway Traffic
Safety Administration
400 Seventh Street, SW
Washington, DC 20590
Attn: VIN Coordinator

Manufacturer Identification Registration Report - Part 566

Not later than 30 days after initiation of manufacture of a type of motor vehicle or item of motor vehicle equipment, a manufacturer must submit the following information:

- (a) Full name, address, and State of incorporation, if applicable; and
- (b) Description of each type of motor vehicle, and GVWR range, or item of motor vehicle equipment manufactured.

Address:

Administrator
National Highway Traffic
Safety Administration
400 Seventh Street, SW
Washington, DC 20590

Defect Information Report - Part 573

Each manufacturer shall furnish information to NHTSA for each defect in its motor vehicles or items of motor vehicle equipment that either the manufacturer or the NHTSA Administrator has determined is related to motor vehicle safety. The defect report must be filed not more than 5 working days after a defect has been determined to be safety related.

Address:

Associate Administrator for Safety Assurance
National Highway Traffic
Safety Administration
400 Seventh Street, SW
Washington, DC 20590

Quarterly Defect Report - Part 573

Not more than 25 days after the close of each calendar quarter, and for 6 consecutive quarters, manufacturers shall submit to NHTSA information on the number of vehicles or items involved in the recall, the number inspected and repaired, the number inspected and determined not to need a repair, and the number of owners determined to be unreachable.

Address:

Associate Administrator for Safety Assurance
National Highway Traffic
Safety Administration
400 Seventh Street, SW
Washington, DC 20590

FEDERAL MOTOR CARRIER SAFETY REGULATIONS

The Federal Motor Carrier Safety Administration (FMCSA) is a safety and regulatory organization responsible for a national program to ensure safe operation of commercial motor vehicles, including trucks and buses. FMCSA is part of the U.S. Department of Transportation. The agency administers the Federal Motor Carrier Safety Regulations (FMCSRs), as published in Volume 49 of the Code of Federal Regulations. FMCSRs prescribe safety and operational requirements for carriers operating in interstate commerce. The FMCSRs apply to the users of motor vehicles, rather than to manufacturers, distributors, or dealers. Federal and state regulatory personnel conduct on-site safety compliance reviews at the motor carriers' place of business to ensure compliance with the FMCSRs.

Through its Motor Carrier Assistance Program (MCSAP), the agency offers grants to States to enforce the safety regulations through roadside safety inspections. To be eligible for funding, States participating in the MCSAP must adopt federal safety regulations for intrastate operations.

In addition to vehicle safety regulations, FMCSA administers the national Commercial Driver's License program and the Federal hours of service requirements. It also establishes the medical fitness requirements for commercial motor vehicle operators.

Additional Information may be obtained from:

Federal Motor Carrier Safety Administration
400 Seventh Street, SW
Washington, DC 20590

CANADIAN MOTOR VEHICLE SAFETY STANDARDS

Originally patterned after U.S. Federal Motor Vehicle Safety Standards, the Canadian safety regulations relate to the design and performance of passenger cars, multipurpose passenger vehicles, buses, trucks, trailers, minibikes, motorcycles, and snowmobiles. The standards also limit motor vehicle exhaust emissions.

Canadian regulations require all motor vehicle manufacturers or distributors to apply the national safety mark to every classified vehicle produced after the effective date, accompanied by a label certifying compliance with all applicable Canadian Motor Vehicle Safety Standards.

Canada's Motor Vehicle Safety Standards first became effective on January 1, 1971. Additional standards have been added since that date, and have been updated and amended.

School Bus Manufacturers Technical Council

The School Bus Manufacturers Technical Council (SBMTC), an organization within the National Association of State Directors of Pupil Transportation Services, was established in 1995. SBMTC operates and functions as the industry's technical advisor. The school transportation industry requires a method of technical communication, and SBMTC is the tool to accomplish this purpose. The council provides a forum in which council members can address technical and government-related issues concerning the manufacture and acceptability of school bus chassis and school bus bodies.

The goals and objectives for which SBMTC is organized are:

1. Encourage and promote safety in the design of school buses;
2. Assist the National Association of State Directors of Pupil Transportation Services through communication of design trends, historical data, and other information pertaining to the pupil transportation industry;
3. Communicate to member companies actions by the National Highway Traffic Safety Administration and other governmental agencies as they affect the school bus industry;
4. Keep open communications between school bus chassis and bus body manufacturers on technical issues;
5. Develop and issue appropriate "Position Papers;"
6. Assist the National Conference on School Transportation; and
7. Work jointly with other associations and societies to assist in the achievement of SBMTC goals and objectives.